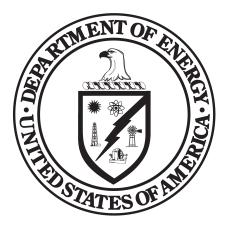
DOE/CF-0157

# **Department of Energy** FY 2020 Congressional Budget Request

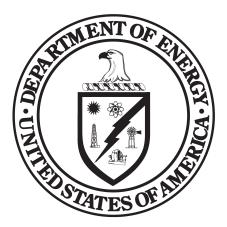


# Laboratory Tables Preliminary

March 2019 Office of Chief Financial Officer

DOE/CF-0157

# **Department of Energy** FY 2020 Congressional Budget Request



# Laboratory Tables Preliminary

The numbers depicted in this document represent the <u>gross</u> level of DOE <u>budget authority</u> for the years displayed. The figures include discretionary and supplemental funding. They do not consider revenues/receipts, use of prior year balances, deferrals, rescissions, or other adjustments appropriated as offsets to the DOE appropriations by the Congress.

March 2019

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Office of Chief Financial Officer

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Laboratory Table (Dollars In Thousands) Page 1 of 3

Page lumber	Laboratory / Facility Index	FY 2018 Total Enacted*	FY 2019 Enacted	FY 2020 Reques
1	Advanced Photon Source	\$18,878	\$40,878	\$44,100
2	Ames Laboratory	\$57,944	\$47,237	\$20,479
3	Ames Site Office	\$645	\$658	\$676
4	Argonne National Laboratory	\$756,019	\$823,712	\$766,208
	Argonne Site Office	\$4,327	\$4,415	\$4,270
8	Bechtel Marine Propulsion Center	\$7,000	\$7,000	\$0
9	Berkeley Site Office	\$3,561	\$3,588	\$3,727
10	Bettis Atomic Power Laboratory	\$591,482	\$685,949	\$600,54
11		\$535,991	\$575,075	\$497,603
13	Brookhaven Site Office	\$4,837	\$4,905	\$4,58
14	Carlsbad Area Office	\$51,146	\$84,806	\$56,17 <sup>-</sup>
15	Chicago Operations Office	\$955,514	\$913,517	\$707,865
16	Consolidated Business Center	\$34,400	\$34,157	\$32,35
17	East Tennessee Technology Park (K25)	\$239,552	\$236,281	\$136,094
18	Energy Technology Engineering Center	\$9,000	\$11,000	\$18,19
19	Fermi National Accelerator Laboratory	\$482,825	\$546,704	\$426,14
	Fermi Site Office	\$2,497	\$2,581	\$2,49
21	Fernald Environmental Management Project	\$1,000	\$1,100	\$1,10
22	Fernald Site	\$11,040	\$12,276	\$13,23
23	General Atomics Site	\$14,700	\$0	\$
24	Golden Field Office	\$489,463	\$519,910	\$111,75
25		\$37,931	\$44,961	\$51,53
26	Hanford Site	\$937,301	\$943,976	\$712,97
27		\$1,362,658	\$1,466,695	\$1,176,41
30	Idaho Operations Office	\$264,862	\$240,769	\$131,79
	Kansas City National Security Complex (KCNSC)	\$671,101	\$753,446	\$995,60
	Kansas City Site Office	\$44,998	\$7,406	\$7,54
34	Knolls Atomic Power Laboratory	\$727,075	\$740,237	\$678,12
	Lawrence Berkeley National Laboratory	\$866,714	\$856,638	\$615,57
	Lawrence Livermore National Laboratory	\$1,731,320	\$1,563,352	\$1,841,88
	Lexington Office	\$200	\$200	\$20
	Livermore Site Office	\$17,973	\$18,829	\$18,77
	Los Alamos National Laboratory	\$2,405,290	\$2,484,741	\$2,527,88
	Los Alamos Site Office	\$15,446	\$17,665	\$17,77
	Miamishura Site	\$10,000	\$0	\$
	Moab Site	\$37,884	\$45,000	\$35,69
	Morgantown Office	\$16,211	\$18,274	\$17,73
	Mound Site	\$16,027	\$15,027	\$13,49
	National Energy Technology Lab	\$760,770	\$685,290	\$612,384

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Laboratory Table (Dollars In Thousands) Page 2 of 3

Page umber	Laboratory / Facility Index	FY 2018 Total Enacted*	FY 2019 Enacted	FY 202 Reques
53	National Renewable Energy Laboratory	\$383,786	\$332,097	\$205,739
	Naval Petroleum Reserve No 1	\$17,600	\$9,000	\$13,000
56	Naval Petroleum Reserve No 3	\$1,600	\$0	\$0
57	Naval Reactors Laboratory Field Office	\$523	\$0	\$
	Naval Research Laboratory	\$32,251	\$31,416	\$24,89
59	Nevada Field Office	\$123,888	\$131,973	\$167,60
60	Nevada National Security Site	\$451,676	\$388,270	\$495,04
61	Nevada Operations Office	\$482	\$0	\$
62	NNSA Albuquerque Complex	\$838,885	\$907,323	\$658,78
64	NNSA Production Office (NPO)	\$72,241	\$33,725	\$39,07
65	Oak Ridge Institute for Science & Education	\$39,436	\$19,901	\$16,08
		\$1,714,199	\$1,766,723	\$1,376,52
71	Oak Ridge National Laboratory Site Office	\$5,465	\$5,551	\$5,24
		\$116,371	\$206,160	\$167,92
74	Oak Ridge Reservation	\$71,000	\$74,000	\$82,00
	Oak Ridge Reservation (Off-Site)	\$5,605	\$5,700	\$4,81
	Office of River Protection	\$1,496,907	\$1,549,678	\$1,424,73
77	Office of Scientific & Technical Information	\$11,710	\$11,238	\$10,90
78	Ohio Field Office	\$5	\$5	\$
79	Pacific Northwest National Laboratory	\$642,085	\$603,378	\$521,08
	Pacific Northwest Site Office	\$4,942	\$5,084	\$4,98
83	Paducah Gaseous Diffusion Plant	\$286,459	\$290,049	\$288,95
84	Pantex Plant	\$795,296	\$825,073	\$959,43
85	Pinellas Site	\$4,070	\$5,545	\$3,93
86	Portsmouth Gaseous Diffusion Plant	\$454,184	\$481,506	\$431,08
87	Princeton Plasma Physics Laboratory	\$108,114	\$111,679	\$71,07
88	Princeton Site Office	\$1,799	\$1,862	\$1,89
89	Richland Operations Office	\$154,808	\$116,712	\$55,88
	Rocky Flats Site	\$41,259	\$36,065	\$34,56
91	Sandia National Laboratories	\$2,219,792	\$2,297,798	\$2,400,80
95	Sandia Site Office	\$22,644	\$22,972	\$24,27
96	Savannah River National Laboratory	\$6,423	\$4,184	\$1,10
	Savannah River Operations Office	\$505,586	\$431,458	\$439,52
	Savannah River Site	\$1,678,906	\$1,816,990	\$2,232,82
100	Savannah River Site Office	\$10	\$10	\$1
	Separations Process Research Unit	\$4,800	\$15,000	\$15,30
	SLAC National Accelerator Laboratory	\$527,299	\$487,394	\$306,91
	Southeastern Power Administration	\$72,449	\$75,324	\$87,01
	Southwestern Power Administration	\$112,947	\$126,876	\$156,86

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Laboratory Table (Dollars In Thousands)

	(Dollars in Thousand	us)		
Page Number	Laboratory / Facility Index	FY 2018 Total Enacted*	FY 2019 Enacted	FY 2020 Request
106	SPRO PMO	\$8 716	\$0	\$0
107	Stanford Site Office	- \$2 708	\$2,702	\$3,514
108	Strategic Petroleum Reserve - Bayou Choctaw	- \$14,985	\$13,523	\$13,785
109	Strategic Petroleum Reserve - Big Hill	- \$22,879	\$22,176	\$18,404
110	Strategic Petroleum Reserve - Bryan Mound	- \$20,144	\$25,473	\$17,634
111	Strategic Petroleum Reserve - West Hackberry	- \$23,972	\$24,093	\$22,481
112	Strategic Petroleum Reserve Project Office	- \$139,394	\$117,637	\$89,936
113	Thomas Jefferson National Accelerator Facility	- \$137,427	\$132,805	\$132,640
114	Thomas Jefferson Site Office	- \$1,947	\$1,971	\$2,165
115	Undesignated Lab/Plant/Installation	\$311,076	\$228,970	\$104,900
116	University of Rochester	\$75,000	\$80,000	\$80,000
117	Washington Headquarters	\$4,924,665	\$5,692,984	\$4,791,223
124	Waste Isolation Pilot Plant	\$351,328	\$340,797	\$363,281
125	Weldon Spring Site Office	\$7 482	\$2,996	\$3,193
126	West Valley Demonstration Project	\$78,098	\$78,133	\$78,411
127	Western Area Power Administration	\$676,505	\$724,202	\$761,498
128	Y-12 National Security Complex	\$1,782,045	\$1,860,765	\$1,941,691
129	Y-12 Site Office	- \$40,113 -	\$38,020	\$34,906
	Total Department Of Energy	\$35,841,568	\$37,073,221	\$34,092,581

\* Includes Supplemental Funding.

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vanced Photon Source	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Reques
Office of Indian Energy Policy and Programs		2.130104	04000
Program direction			
Program direction	\$0	\$4,800	\$3,521
Tribal Energy Program			
Tribal Energy Program	\$0	\$13,200	\$4,479
Total Office of Indian Energy Policy and Programs	\$0	\$18,000	\$8,000
Departmental Administration			
Program Direction			
Program Direction	\$18,878	\$22,878	\$0
Total Departmental Administration	\$18,878	\$22,878	\$0
International Affairs			
Program Direction			
Program Direction	\$0	\$0	\$36,100
Total International Affairs	\$0	\$0	\$36,100
al Advanced Photon Source	\$18,878	\$40,878	\$44,100

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Laboratory Table (Dollars In Thousands) Page 2 of 129

es Laboratory	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Reques
Energy Efficiency and Renewable Energy		Enacted	Reques
Energy Efficiency and Renewable Energy			
Hydrogen & Fuel Cell Technologies	\$263	\$686	\$
Vehicle Technologies	\$800	\$650	\$
Advanced Manufacturing	\$33,160	\$25,000	\$
Total Energy Efficiency and Renewable Energy	\$34,223	\$26,336	\$
Total Energy Efficiency and Renewable Energy	\$34,223	\$26,336	\$
Science			
Basic Energy Sciences			
Basic Energy Sciences	\$15,790	\$17,620	\$17,58
Biological and Environmental Research			
Biological and Environmental Research	\$1,000	\$1,250	\$
Workforce Development for Teachers and Scientists			
Workforce Development for Teachers and Scientists	\$556	\$0	\$
Science Laboratories Infrastructure			
Science Laboratories Infrastructure	\$3,492	\$0	\$1,00
Safeguards and Security			
Safeguards and Security	\$1,229	\$1,231	\$1,23
Total Science	\$22,067	\$20,101	\$19,81
Fossil Energy Research and Development			
CCS and Power Systems			
Advanced Energy Systems	\$500	\$500	\$
Cross Cutting Research	\$1,154	\$300	\$
Total CCS and Power Systems	\$1,654	\$800	\$
Advanced Coal Energy Systems and CCUS			
Crosscutting Research	\$0	\$0	\$66
Total Fossil Energy Research and Development	\$1,654	\$800	\$66
I Ames Laboratory	\$57,944	\$47,237	\$20,47

	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)	2/26/2019 3:01:52PM Page 3 of 129	
Ames Site Office	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Science		Endotod	Roquoor
Program Direction			
Program Direction	\$645	\$658	\$676
Total Science	\$645	\$658	\$676
Total Ames Site Office	\$645	\$658	\$676

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Laboratory Table (Dollars In Thousands) Page 4 of 129

onne National Laboratory	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Reques
Electricity	Total Endeted	Endoted	Reques
Electricity			
Transmission Reliability and Resilience	\$5,668	\$1,320	\$9,300
Resilient Distribution Systems	\$4,015	\$1,948	\$2,000
Cybersecurity for Energy Delivery Systems	\$426	\$0	\$0
Transmission Permitting and Technical Assistance	\$390	\$0	\$0
Infrastructure Security & Energy Restoration	\$1,070	\$0	\$0
Total Electricity	\$11,569	\$3,268	\$11,300
Total Electricity	\$11,569	\$3,268	\$11,300
Cybersecurity, Energy Security, and Emergency Resp			
Cybersecurity, Energy Security, and Emergency Resp			
Infrastructure Security and Energy Restoration (ISER)	\$0	\$1,865	\$5,000
CEDS	\$0	\$150	\$900
Total Cybersecurity, Energy Security, and Emergency Resp	\$0	\$2,015	\$5,900
Total Cybersecurity, Energy Security, and Emergency Resp	\$0	\$2,015	\$5,900
Nuclear Energy			
Fuel Cycle R & D			
Fuel Cycle R & D	\$8,608	\$6,490	\$1,060
Program Direction-NE			
Program Direction-NE	\$100	\$0	\$0
Nuclear Energy Enabling Technologies			
Nuclear Energy Enabling Technologies	\$7,667	\$6,380	\$5,780
Reactors Concepts RD&D			
Reactors Concepts RD&D	\$20,242	\$21,170	\$22,350
International Nuclear Energy Cooperation			
International Nuclear Energy Cooperation	\$155	\$195	\$0
Total Nuclear Energy	\$36,772	\$34,235	\$29,190
Energy Efficiency and Renewable Energy			
Energy Efficiency and Renewable Energy			
Wind Energy	\$1,198	\$1,052	\$703
Hydrogen & Fuel Cell Technologies	\$7,169	\$5,399	\$2,000
Water Power	\$1,398	\$153	\$58
Solar Energy	\$1,641	\$2,637	\$1,469
Vehicle Technologies	\$62,026	\$58,000	\$15,500
Building Technologies	\$1,320	\$1,320	\$24
Advanced Manufacturing	\$12,840	\$3,120	\$2,000
Bioenergy Technologies	\$8,435	\$5,457	\$2,650
Total Energy Efficiency and Renewable Energy	\$96,027	\$77,138	\$25,150
Total Energy Efficiency and Renewable Energy	\$96,027	\$77,138	\$25,150
Nuclear Waste Disposal			
Yucca Mountain and Interim Storage			
Yucca Mountain and Interim Storage	\$0	\$0	\$800

Laboratory Table

(Dollars In Thousands)

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onne National Laboratory	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Total Nuclear Waste Disposal	\$0	\$0	\$800
Science			
Advanced Scientific Computing Research			
Advanced Scientific Computing Research	\$122,782	\$153,798	\$159,318
Basic Energy Sciences			
Basic Energy Sciences	\$295,783	\$360,799	\$371,817
Biological and Environmental Research			
Biological and Environmental Research	\$32,349	\$31,442	\$19,445
High Energy Physics			
High Energy Physics	\$14,979	\$15,695	\$10,157
Nuclear Physics			
Nuclear Physics	\$32,818	\$33,384	\$29,293
Workforce Development for Teachers and Scientists			
Workforce Development for Teachers and Scientists	\$1,328	\$0	\$0
Science Laboratories Infrastructure			
Science Laboratories Infrastructure	\$54,105	\$53,393	\$44,850
Safeguards and Security			
Safeguards and Security	\$9,166	\$9,996	\$10,019
Total Science	\$563,310	\$658,507	\$644,899
Office of Technology Transitions			
Office of Technology Transitions			
Office of Technology Transitions	\$55	\$55	\$55
Total Office of Technology Transitions	\$55	\$55	\$55
Weapons Activities			
Science			
Science Campaign	\$820	\$532	\$300
Advanced Simulation & Computing			
Advanced Simulation & Computing Campaign	\$500	\$0	\$0
Infrastructure and Operations			
Infrastructure and Operations	\$1,650	\$1,650	\$0
Total Weapons Activities	\$2,970	\$2,182	\$300
Other Defense Activities			
Environment, Health, Safety and Security			
Environment, Health, Safety and Security	\$945	\$945	\$945
Total Other Defense Activities	\$945	\$945	\$945
Defense Nuclear Nonproliferation			
Defense Nuclear Nonproliferation R&D			
Defense Nuclear Nonproliferation R&D	\$9,723	\$24,375	\$3,807
Nuclear Counterterrorism and Incident Response		•	<b>.</b>
Nuclear Counterterrorism Incident Response	\$3,056	\$3,325	\$3,486
Global Material Security		• • • • • •	
Global Material Security	\$2,036	\$2,236	\$1,687

FY 2020 C Labo	partment Of Energy congressional Budget pratory Table ars In Thousands)	2/26/2019 3:01:52PM Page 6 of 129	
Argonne National Laboratory	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Material Management and Minimization			
Material Management and Minimization	\$19,611	\$5,903	\$28,584
Nonproliferation and Arms Control			
Nonproliferation and Arms Control	\$9,484	\$9,100	\$9,677
Total Defense Nuclear Nonproliferation	\$43,910	\$44,939	\$47,241
Federal Salaries and Expenses			
Federal Salaries and Expenses			
Federal Salaries and Expenses	\$461	\$428	\$428
Total Federal Salaries and Expenses	\$461	\$428	\$428
– Total Argonne National Laboratory	\$756,019	\$823,712	\$766,208

	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)		2/26/2019 3:01:52PM Page 7 of 129	
Argonne Site Office	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request	
Science Program Direction Program Direction	\$4,327	\$4,415	\$4,270	
Total Science	\$4,327	\$4,415	\$4,270	
Total Argonne Site Office	\$4,327	\$4,415	\$4,270	

	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)		2019 52PM 8 of 129
Bechtel Marine Propulsion Center	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Nuclear Energy Fuel Cycle R & D			<u> </u>
Fuel Cycle R & D Total Nuclear Energy	\$7,000	\$7,000	\$0 \$0
Total Bechtel Marine Propulsion Center	\$7,000	\$7,000	\$0

	FY 2020 Congressional Budget		2/26/2019 3:01:52PM Page 9 of 129	
Berkeley Site Office	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request	
Science Program Direction Program Direction	\$3,561	\$3,588	\$3,727	
Total Science	\$3,561	\$3,588	\$3,727	
Total Berkeley Site Office	\$3,561	\$3,588	\$3,727	

	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)	2/26/2019 3:01:52PM Page 10 of 129	
ettis Atomic Power Laboratory	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Weapons Activities Infrastructure and Operations Infrastructure and Operations	\$508	\$0	\$0
Total Weapons Activities	\$508	\$0	\$0
Naval Reactors Naval Reactors Program Naval Reactors Program	\$590,974	\$685,949	\$600,547
Total Naval Reactors	\$590,974	\$685,949	\$600,547
otal Bettis Atomic Power Laboratory	\$591,482	\$685,949	\$600,547

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Laboratory Table (Dollars In Thousands) Page 11 of 129

okhaven National Laboratory	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Reques
Non-Defense Environmental Cleanup		Endoted	ricqueor
Small Sites			
Small Sites	\$2,000	\$20,456	\$0
Total Non-Defense Environmental Cleanup	\$2,000	\$20,456	\$0
Electricity			
Electricity			
Transmission Reliability and Resilience	\$700	\$700	\$700
Resilient Distribution Systems	\$85	\$0	\$0
Cybersecurity for Energy Delivery Systems	\$1,689	\$0	\$0
Total Electricity	\$2,474	\$700	\$700
Total Electricity	\$2,474	\$700	\$700
Nuclear Energy			
Fuel Cycle R & D			
Fuel Cycle R & D	\$2,406	\$1,444	\$730
Nuclear Energy Enabling Technologies			
Nuclear Energy Enabling Technologies	\$650	\$650	\$500
Reactors Concepts RD&D			
Reactors Concepts RD&D	\$102	\$210	\$150
Total Nuclear Energy	\$3,158	\$2,304	\$1,380
Energy Efficiency and Renewable Energy			
Energy Efficiency and Renewable Energy			
Geothermal Technologies	\$425	\$0	\$0
Hydrogen & Fuel Cell Technologies	\$500	\$996	\$0
Solar Energy	\$20	\$0	\$0
Vehicle Technologies	\$3,085	\$2,500	\$2,000
Total Energy Efficiency and Renewable Energy	\$4,030	\$3,496	\$2,000
Total Energy Efficiency and Renewable Energy	\$4,030	\$3,496	\$2,000
Science			
Advanced Scientific Computing Research			
Advanced Scientific Computing Research	\$1,116	\$1,590	\$728
Basic Energy Sciences			
Basic Energy Sciences	\$170,216	\$169,571	\$162,261
Biological and Environmental Research		• · • · • =	
Biological and Environmental Research	\$14,842	\$12,107	\$9,001
High Energy Physics	<b>*•</b> • • <b>• •</b>	***	
High Energy Physics	\$64,652	\$82,255	\$77,542
Nuclear Physics	¢000.004	\$000 04 A	<b>\$004.000</b>
Nuclear Physics	\$206,394	\$209,914	\$201,989
Workforce Development for Teachers and Scientists	¢0.066	ውር	ድኅ
Workforce Development for Teachers and Scientists Science Laboratories Infrastructure	\$2,266	\$0	\$0
Science Laboratories Infrastructure	\$43,500	\$49,200	\$18,400
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Laboratory Table (Dollars In Thousands)

okhaven National Laboratory	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Reques
Safeguards and Security	Total Endeted	Enacted	Reques
Safeguards and Security	\$12,413	\$13,933	\$14,013
Total Science	\$515,399	\$538,570	\$483,934
Office of Technology Transitions			
Office of Technology Transitions			
Office of Technology Transitions	\$55	\$55	\$55
Total Office of Technology Transitions	\$55	\$55	\$55
Weapons Activities			
Infrastructure and Operations			
Infrastructure and Operations	\$262	\$325	\$391
Total Weapons Activities	\$262	\$325	\$391
Other Defense Activities			
Environment, Health, Safety and Security			
Environment, Health, Safety and Security	\$250	\$250	\$250
Total Other Defense Activities	\$250	\$250	\$250
Defense Nuclear Nonproliferation			
Defense Nuclear Nonproliferation R&D			
Defense Nuclear Nonproliferation R&D	\$1,175	\$1,119	\$718
Nuclear Counterterrorism and Incident Response			
Nuclear Counterterrorism Incident Response	\$2,896	\$2,519	\$2,595
Global Material Security			
Global Material Security	\$1,350	\$1,381	\$1,216
Material Management and Minimization			
Material Management and Minimization	\$0	\$0	\$400
Nonproliferation and Arms Control			
Nonproliferation and Arms Control	\$2,942	\$3,900	\$3,964
Total Defense Nuclear Nonproliferation	\$8,363	\$8,919	\$8,893

	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)	2/26/2019 3:01:52PM Page 13 of 129	
Brookhaven Site Office	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Science Program Direction Program Direction	\$4,837	\$4,905	\$4,589
Total Science	\$4,837	\$4,905	\$4,589
Total Brookhaven Site Office	\$4,837	\$4,905	\$4,589

## Department Of Energy FY 2020 Congressional Budget Laboratory Table

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(Dollars In Thousands)

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	FY 2018	FY 2019	FY 2020
sbad Area Office	Total Enacted	Enacted	Request
Defense Environmental Cleanup			
Waste Isolation Pilot Plant			
Operation and Maintenance	\$10,000	\$46,695	\$17,500
Central Characterization Project	\$22,500	\$19,500	\$20,400
Total Waste Isolation Pilot Plant	\$32,500	\$66,195	\$37,900
Program Direction			
Carlsbad	\$12,176	\$12,031	\$11,579
Safeguards and Security			
Waste Isolation Pilot Plant	\$6,470	\$6,580	\$6,692
Total Defense Environmental Cleanup	\$51,146	\$84,806	\$56,171
tal Carlsbad Area Office	\$51,146	\$84,806	\$56,171

Laboratory Table

(Dollars In Thousands)

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cago Operations Office	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Nuclear Energy			
Nuclear Energy Enabling Technologies			
Nuclear Energy Enabling Technologies	\$428	\$234	\$234
Total Nuclear Energy	\$428	\$234	\$234
Science			
Advanced Scientific Computing Research			
Advanced Scientific Computing Research	\$20,550	\$16,885	\$30,533
Basic Energy Sciences			
Basic Energy Sciences	\$260,829	\$339,965	\$285,591
Biological and Environmental Research			
Biological and Environmental Research	\$165,637	\$123,181	\$93,051
Fusion Energy Sciences			
Fusion Energy Sciences	\$177,355	\$140,519	\$85,446
High Energy Physics			
High Energy Physics	\$116,220	\$110,234	\$67,793
Nuclear Physics			
Nuclear Physics	\$186,037	\$153,940	\$119,753
Science Laboratories Infrastructure		· - · · -	¥ -,
Science Laboratories Infrastructure	\$1,713	\$1,713	\$1,550
Safeguards and Security	· · · ·	, , -	, ,
Safeguards and Security	\$50	\$50	\$50
Program Direction			
Program Direction	\$24,445	\$24,546	\$23,614
Total Science	\$952,836	\$911,033	\$707,381
Weapons Activities			
Advanced Simulation & Computing			
Advanced Simulation & Computing Campaign	\$2,000	\$2,000	\$0
Total Weapons Activities	\$2,000	\$2,000	\$0
Other Defense Activities			
Environment, Health, Safety and Security			
Environment, Health, Safety and Security	\$50	\$50	\$50
Total Other Defense Activities	\$50	\$50	\$50
Departmental Administration			
Strategic Partnership Projects			
Strategic Partnership Projects	\$200	\$200	\$200
Total Departmental Administration	\$200	\$200	\$200
I Chicago Operations Office	\$955,514	\$913,517	\$707,865
	\$555,511	<i>40.0,011</i>	<i></i> ,

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estideted Dusiness Conter	FY 2018	FY 2019	FY 2020
solidated Business Center	Total Enacted	Enacted	Request
Weapons Activities			
Infrastructure and Operations			
Infrastructure and Operations	\$559	\$0	\$0
Total Weapons Activities	\$559	\$0	\$0
Other Defense Activities			
Environment, Health, Safety and Security			
Environment, Health, Safety and Security	\$259	\$259	\$259
Total Other Defense Activities	\$259	\$259	\$259
Defense Nuclear Nonproliferation			
Material Management and Minimization			
Material Management and Minimization	\$100	\$0	\$0
Total Defense Nuclear Nonproliferation	\$100	\$0	\$0
Defense Environmental Cleanup			
Closure Sites			
Miamisburg	\$0	\$1,789	\$1,987
Program Direction			
Consolidated Business Center	\$33,482	\$32,109	\$30,107
Total Defense Environmental Cleanup	\$33,482	\$33,898	\$32,094
al Consolidated Business Center	\$34,400	\$34,157	\$32,353

Laboratory Table

(Dollars In Thousands)

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t Tennessee Technology Park (K25)	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Reques
Non-Defense Environmental Cleanup			•
Small Sites			
Oak Ridge – ETTP	\$8,000	\$10,000	\$0
- Total Non-Defense Environmental Cleanup	\$8,000	\$10,000	\$(
Uranium Enrichment Decon. & Decom. Fund			
Uranium Enrichment D&D Fund			
Pension & comm & Reg Suport Oak Ridge	\$19,274	\$17,258	\$17,65
Oak Ridge	\$194,673	\$195,000	\$109,439
Total Uranium Enrichment D&D Fund	\$213,947	\$212,258	\$127,094
Total Uranium Enrichment Decon. & Decom. Fund	\$213,947	\$212,258	\$127,094
Defense Environmental Cleanup			
Safeguards and Security			
Oak Ridge Reservation	\$17,605	\$14,023	\$9,000
Total Defense Environmental Cleanup	\$17,605	\$14,023	\$9,00
al East Tennessee Technology Park (K25)	\$239,552	\$236,281	\$136,094

FY 2	Department Of Energy 020 Congressional Budget Laboratory Table (Dollars In Thousands)		2019 :52PM • 18 of 129
Energy Technology Engineering Center	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Non-Defense Environmental Cleanup Small Sites Small Sites	\$9,000	\$11,000	\$18,199
Total Non-Defense Environmental Cleanup	\$9,000	\$11,000	\$18,199
Total Energy Technology Engineering Center	\$9,000	\$11,000	\$18,199

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mi National Accelerator Laboratory	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Science			
Advanced Scientific Computing Research			
Advanced Scientific Computing Research	\$341	\$174	\$174
Basic Energy Sciences			
Basic Energy Sciences	\$354	\$135	\$135
High Energy Physics			
High Energy Physics	\$456,274	\$519,303	\$407,903
Nuclear Physics			
Nuclear Physics	\$210	\$0	\$0
Workforce Development for Teachers and Scientists			
Workforce Development for Teachers and Scientists	\$250	\$0	\$0
Science Laboratories Infrastructure			
Science Laboratories Infrastructure	\$20,000	\$20,000	\$10,000
Safeguards and Security			
Safeguards and Security	\$5,341	\$7,037	\$7,877
Total Science	\$482,770	\$546,649	\$426,089
Office of Technology Transitions			
Office of Technology Transitions			
Office of Technology Transitions	\$55	\$55	\$55
Total Office of Technology Transitions	\$55	\$55	\$55
al Fermi National Accelerator Laboratory	\$482,825	\$546,704	\$426,144

	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)	2/26/2019 3:01:52PM Page 20 of 129	
Fermi Site Office	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Science Program Direction Program Direction	\$2,497	\$2,581	\$2,490
Total Science	\$2,497	\$2,581	\$2,490
Total Fermi Site Office	\$2,497	\$2,581	\$2,490

	Department Of Energy 20 Congressional Budget Laboratory Table (Dollars In Thousands)	3:0	/2019 1:52PM e 21 of 129
Fernald Environmental Management Project	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Defense Environmental Cleanup Closure Sites Fernald	\$1,000	\$1,100	\$1,100
Total Defense Environmental Cleanup	\$1,000	\$1,100	\$1,100
Total Fernald Environmental Management Project	\$1,000	\$1,100	\$1,100

	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)	2/26/2019 3:01:52PM Page 22 of 129	
Fernald Site	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Other Defense Activities Office of Legacy Management Legacy Management	\$11,040	\$12.276	\$13,231
Total Other Defense Activities	\$11,040	\$12,276	\$13,231
Total Fernald Site	\$11,040	\$12,276	\$13,231

FY 2020 C Labo	partment Of Energy ongressional Budget aratory Table ars In Thousands)	3:0	2/26/2019 3:01:52PM Page 23 of 129	
General Atomics Site	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request	
Weapons Activities Inertial Confinement Fusion Ignition High Yield Inertial Confinement Fusion Ignition High Yield Carr	npaign \$14,700	\$0	\$0	
Total Weapons Activities	\$14,700	\$0	\$0	
Total General Atomics Site	\$14,700	\$0	\$0	

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lden Field Office	FY 2018	FY 2019	FY 2020
	Total Enacted	Enacted	Request
Energy Efficiency and Renewable Energy			
Energy Efficiency and Renewable Energy			
Wind Energy	\$6,432	\$20,845	\$225
Program Direction	\$21,091	\$23,129	\$20,770
Geothermal Technologies	\$23,224	\$6,986	\$15,000
Hydrogen & Fuel Cell Technologies	\$37,743	\$53,007	\$25,000
Water Power	\$52,338	\$49,965	\$18,720
Solar Energy	\$120,662	\$139,759	\$11,000
Vehicle Technologies	\$3,440	\$2,800	\$1,000
Building Technologies	\$18,276	\$54,885	\$19,440
Federal Energy Management Program	\$1,721	\$650	\$600
Weatherization	\$470	\$811	\$0
State Energy Program Grants	\$1,485	\$1,495	\$0
Advanced Manufacturing	\$130,362	\$77,000	\$0
Bioenergy Technologies	\$68,919	\$88,578	\$0
Total Energy Efficiency and Renewable Energy	\$486,163	\$519,910	\$111,755
Total Energy Efficiency and Renewable Energy	\$486,163	\$519,910	\$111,755
Departmental Administration			
Office of Indian Energy			
Office of Indian Energy	\$3,300	\$0	\$0
Total Departmental Administration	\$3,300	\$0	\$0
al Golden Field Office	\$489,463	\$519,910	\$111,755

	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)	2/26/2019 3:01:52PM Page 25 of 129	
Grand Junction Office	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Other Defense Activities Office of Legacy Management Legacy Management	\$37,931	\$44,961	\$51,531
Total Other Defense Activities	\$37,931	\$44,961	\$51,531
Total Grand Junction Office	\$37,931	\$44,961	\$51,531

Laboratory Table

(Dollars In Thousands)

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nford Site	FY 2018	FY 2019	FY 2020
liora Sile	Total Enacted	Enacted	Request
Non-Defense Environmental Cleanup			
Fast Flux Test Reactor Facility			
Fast Flux Test Reactor Facility	\$2,240	\$2,240	\$2,500
Total Non-Defense Environmental Cleanup	\$2,240	\$2,240	\$2,500
Defense Environmental Cleanup			
Hanford Site			
Central Plateau Remediation	\$669,379	\$661,358	\$533,949
River Corridor & Other Cleanup Operations	\$183,692	\$193,692	\$89,750
Total Hanford Site	\$853,071	\$855,050	\$623,699
Safeguards and Security			
Richland/Hanford Site	\$81,990	\$86,686	\$86,778
Total Defense Environmental Cleanup	\$935,061	\$941,736	\$710,477
al Hanford Site	\$937,301	\$943,976	\$712,977

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Laboratory Table (Dollars In Thousands)

o National Laboratory	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Reques
Non-Defense Environmental Cleanup		Endoted	ricquet
Small Sites			
Small Sites	\$11,972	\$10,000	\$12,80
Total Non-Defense Environmental Cleanup	\$11,972	\$10,000	\$12,800
Electricity			
Electricity			
Transmission Reliability and Resilience	\$325	\$250	\$1,000
Resilient Distribution Systems	\$967	\$200	\$200
Cybersecurity for Energy Delivery Systems	\$18,452	\$0	\$0
Transformer Resilience and Advanced Components	\$14	\$221	\$300
Infrastructure Security & Energy Restoration	\$328	\$0	\$0
Total Electricity	\$20,086	\$671	\$1,500
Total Electricity	\$20,086	\$671	\$1,500
Cybersecurity, Energy Security, and Emergency Resp			
Cybersecurity, Energy Security, and Emergency Resp			
Infrastructure Security and Energy Restoration (ISER)	\$0	\$250	\$7,000
CEDS	\$0	\$13,000	\$3,000
Total Cybersecurity, Energy Security, and Emergency Resp	\$0	\$13,250	\$10,000
Total Cybersecurity, Energy Security, and Emergency Resp	\$0	\$13,250	\$10,000
Nuclear Energy			
Fuel Cycle R & D			
Fuel Cycle R & D	\$58,013	\$56,307	\$13,390
Radiological Facilities Management			
Radiological Facilities Management	\$8,948	\$8,949	\$8,948
Idaho Facilities Management			
Idaho Facilities Management	\$287,437	\$310,708	\$202,742
Idaho Sitewide Safeguards and Security			
Idaho Sitewide Safeguards and Security	\$129,183	\$142,191	\$133,909
Program Direction-NE			
Program Direction-NE	\$280	\$0	\$0
Nuclear Energy Enabling Technologies			
Nuclear Energy Enabling Technologies	\$71,846	\$64,354	\$38,675
Reactors Concepts RD&D			
Reactors Concepts RD&D	\$70,537	\$110,310	\$120,350
International Nuclear Energy Cooperation			
International Nuclear Energy Cooperation	\$838	\$1,415	\$0
Supercritical Transformational Electric Power Generation			
Supercritical Transformational Electric Power Generation	\$53	\$0	\$0
Total Nuclear Energy	\$627,135	\$694,234	\$518,014

Energy Efficiency and Renewable Energy

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Laboratory Table (Dollars In Thousands)

o National Laboratory	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Energy Efficiency and Renewable Energy		Enacted	Request
Wind Energy	\$869	\$159	\$524
Geothermal Technologies	\$556	\$744	\$25
Hydrogen & Fuel Cell Technologies	\$3,575	\$5,442	\$1,200
Water Power	\$2,640	\$877	\$583
Solar Energy	\$185	\$0	\$0
Vehicle Technologies	\$12,932	\$10,500	\$4,900
Federal Energy Management Program	\$400	\$135	\$200
Advanced Manufacturing	\$5,000	\$0	\$0
Bioenergy Technologies	\$14,806	\$11,350	\$3,600
Total Energy Efficiency and Renewable Energy	\$40,963	\$29,207	\$11,032
Total Energy Efficiency and Renewable Energy	\$40,963	\$29,207	\$11,032
Nuclear Waste Disposal			
Yucca Mountain and Interim Storage			
Yucca Mountain and Interim Storage	\$0	\$0	\$10
Total Nuclear Waste Disposal	\$0	\$0	\$10
Science			
Advanced Scientific Computing Research			
Advanced Scientific Computing Research	\$70	\$70	\$70
Basic Energy Sciences			
Basic Energy Sciences	\$900	\$4,592	\$4,103
Fusion Energy Sciences			
Fusion Energy Sciences	\$2,700	\$5,510	\$2,500
Workforce Development for Teachers and Scientists			
Workforce Development for Teachers and Scientists	\$406	\$0	\$0
Total Science	\$4,076	\$10,172	\$6,673
Office of Technology Transitions			
Office of Technology Transitions			
Office of Technology Transitions	\$155	\$155	\$155
Total Office of Technology Transitions	\$155	\$155	\$155
Weapons Activities			
Directed Stockpile Work			
Directed Stockpile Work	\$2,815	\$2,398	\$1,770
Infrastructure and Operations			
Infrastructure and Operations	\$1,031	\$0	\$0
Total Weapons Activities	\$3,846	\$2,398	\$1,770
Other Defense Activities			
Environment, Health, Safety and Security			
Environment, Health, Safety and Security	\$150	\$150	\$150
Total Other Defense Activities	\$150	\$150	\$150
Defense Nuclear Nennreliferation			

Defense Nuclear Nonproliferation

## Department Of Energy FY 2020 Congressional Budget Laboratory Table

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(Dollars In Thousands)

no National Laboratory	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Reques
Defense Nuclear Nonproliferation R&D			•
Defense Nuclear Nonproliferation R&D	\$42,596	\$43,196	\$10,909
Nuclear Counterterrorism and Incident Response			
Nuclear Counterterrorism Incident Response	\$3,720	\$4,609	\$4,74
Global Material Security			
Global Material Security	\$13,683	\$15,098	\$12,03
Material Management and Minimization			
Material Management and Minimization	\$9,391	\$12,350	\$43,06
Nonproliferation and Arms Control			
Nonproliferation and Arms Control	\$1,614	\$2,400	\$2,46
Total Defense Nuclear Nonproliferation	\$71,004	\$77,653	\$73,21
Naval Reactors			
Naval Reactors Program			
Naval Reactors Program	\$149,200	\$195,605	\$205,57
Total Naval Reactors	\$149,200	\$195,605	\$205,57
Fossil Energy Research and Development			
Advanced Coal Energy Systems and CCUS			
Crosscutting Research	\$0	\$0	\$66
Total Fossil Energy Research and Development	\$0	\$0	\$66
Defense Environmental Cleanup			
Idaho National Laboratory			
Idaho Community and Regulatory Support	\$4,071	\$3,200	\$3,50
Idaho Clean-up and Waste Disposition	\$420,000	\$420,000	\$331,35
ID Excess Facilities D&D	\$10,000	\$10,000	\$
Total Idaho National Laboratory	\$434,071	\$433,200	\$334,85
Total Defense Environmental Cleanup	\$434,071	\$433,200	\$334,85
al Idaho National Laboratory	\$1,362,658	\$1,466,695	\$1,176,41

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o Operations Office	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Reques
Electricity			
Electricity			
Resilient Distribution Systems	\$68	\$0	\$0
Transformer Resilience and Advanced Components	\$68	\$0	\$0
Total Electricity	\$136	\$0	\$C
Total Electricity	\$136	\$0	\$0
Nuclear Energy			
University Research Program			
University Research	\$5,000	\$0	\$C
Fuel Cycle R & D			
Fuel Cycle R & D	\$85,822	\$77,515	\$24,211
Radiological Facilities Management			
Radiological Facilities Management	\$44	\$44	\$44
Idaho Facilities Management			
Idaho Facilities Management	\$6,072	\$6,072	\$5,500
Idaho Sitewide Safeguards and Security			
Idaho Sitewide Safeguards and Security	\$3,697	\$3,697	\$3,697
Program Direction-NE			
Program Direction-NE	\$37,486	\$30,706	\$30,706
Nuclear Energy Enabling Technologies			
Nuclear Energy Enabling Technologies	\$16,370	\$17,360	\$14,360
Reactors Concepts RD&D			
Reactors Concepts RD&D	\$97,700	\$94,005	\$40,500
International Nuclear Energy Cooperation			
International Nuclear Energy Cooperation	\$1,249	\$1,117	\$0
Supercritical Transformational Electric Power Generation			
Supercritical Transformational Electric Power Generation	\$998	\$0	\$0
Total Nuclear Energy	\$254,438	\$230,516	\$119,018
Nuclear Waste Disposal			
Yucca Mountain and Interim Storage			
Yucca Mountain and Interim Storage	\$0	\$0	\$2,940
Total Nuclear Waste Disposal	\$0	\$0	\$2,940
Office of Technology Transitions			
Office of Technology Transitions			
Office of Technology Transitions	\$1,150	\$1,150	\$1,150
Total Office of Technology Transitions	\$1,150	\$1,150	\$1,150
Other Defense Activities			
Environment, Health, Safety and Security			
Environment, Health, Safety and Security	\$400	\$400	\$400
Total Other Defense Activities	\$400	\$400	\$400
Departmental Administration			
Departmental Administration			

	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)	2/26/2019 3:01:52PM Page 31 of 129	
Idaho Operations Office	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Strategic Partnership Projects			
Strategic Partnership Projects	\$1,000	\$1,000	\$1,000
Total Departmental Administration	\$1,000	\$1,000	\$1,000
Defense Environmental Cleanup Program Direction			
Idaho	\$7,738	\$7,703	\$7,290
Total Defense Environmental Cleanup	\$7,738	\$7,703	\$7,290
Total Idaho Operations Office	\$264,862	\$240,769	\$131,798

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sas City National Security Complex (KCNSC)	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Weapons Activities			•
Directed Stockpile Work			
Directed Stockpile Work	\$477,718	\$536,388	\$761,108
Science			
Science Campaign	\$1,132	\$1,521	\$1,100
Engineering			
Engineering Campaign	\$3,665	\$3,203	\$6,639
Advanced Simulation & Computing			
Advanced Simulation & Computing Campaign	\$750	\$1,250	\$0
Defense Nuclear Security			
Defense Nuclear Security	\$12,039	\$12,692	\$12,946
Information technology and Cybersecurity			
Information technology and Cybersecurity	\$6,605	\$5,882	\$7,217
Infrastructure and Operations			
Infrastructure and Operations	\$102,509	\$128,735	\$121,752
Secure Transportation Asset			
Secure Transportation Asset	\$21,551	\$20,277	\$19,376
Advanced Manufacturing Development			
Advanced Manufacturing Development	\$13,900	\$13,728	\$9,731
Total Weapons Activities	\$639,869	\$723,676	\$939,869
Other Defense Activities			
Environment, Health, Safety and Security			
Environment, Health, Safety and Security	\$10	\$10	\$10
Total Other Defense Activities	\$10	\$10	\$10
Defense Nuclear Nonproliferation			
Defense Nuclear Nonproliferation R&D			
Defense Nuclear Nonproliferation R&D	\$534	\$275	\$286
Nuclear Counterterrorism and Incident Response			
Nuclear Counterterrorism Incident Response	\$27,347	\$25,274	\$52,032
Material Management and Minimization			
Material Management and Minimization	\$0	\$1,250	\$0
Nonproliferation and Arms Control			
Nonproliferation and Arms Control	\$3,341	\$2,961	\$3,404
		¢20.760	\$55,722
Total Defense Nuclear Nonproliferation	\$31,222	\$29,760	ψ00,722

FY 2020 Congre Laborator	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)		019 52PM 33 of 129
sas City Site Office	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Weapons Activities			
Information technology and Cybersecurity Information technology and Cybersecurity Infrastructure and Operations	\$0	\$0	\$130
Infrastructure and Operations	\$37,974	\$0	\$0
Total Weapons Activities	\$37,974	\$0	\$130
Federal Salaries and Expenses			
Federal Salaries and Expenses			
Federal Salaries and Expenses	\$7,024	\$7,406	\$7,413
Total Federal Salaries and Expenses	\$7,024	\$7,406	\$7,413
al Kansas City Site Office	\$44,998	\$7,406	\$7,543

	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)	2/26/2019 3:01:52PM Page 34 of 129	
olls Atomic Power Laboratory	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Weapons Activities Infrastructure and Operations			
Infrastructure and Operations	\$0	\$0	\$547
Total Weapons Activities	\$0	\$0	\$547
Naval Reactors Naval Reactors Program			
Naval Reactors Program	\$727,075	\$740,237	\$677,574
Total Naval Reactors	\$727,075	\$740,237	\$677,574
al Knolls Atomic Power Laboratory	\$727,075	\$740,237	\$678,121

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rence Berkeley National Laboratory	FY 2018 Total Enacted	FY 2019 Enacted	FY 202 Reques
Non-Defense Environmental Cleanup			
Small Sites			
Small Sites	\$41,000	\$35,000	\$
Total Non-Defense Environmental Cleanup	\$41,000	\$35,000	\$
Electricity			
Electricity			
Transmission Reliability and Resilience	\$2,698	\$1,871	\$3,00
Resilient Distribution Systems	\$1,429	\$300	\$1,20
Cybersecurity for Energy Delivery Systems	\$300	\$0	\$
Energy Storage	\$84	\$0	9
Transmission Permitting and Technical Assistance	\$2,431	\$660	\$1,50
Total Electricity	\$6,942	\$2,831	\$5,70
Total Electricity	\$6,942	\$2,831	\$5,70
Cybersecurity, Energy Security, and Emergency Resp			
Cybersecurity, Energy Security, and Emergency Resp			
CEDS	\$0	\$1,700	9
Total Cybersecurity, Energy Security, and Emergency Resp	\$0	\$1,700	ç
Nuclear Energy			
Fuel Cycle R & D			
Fuel Cycle R & D	\$3,397	\$2,765	\$29
Nuclear Energy Enabling Technologies			
Nuclear Energy Enabling Technologies	\$0	\$200	\$20
Total Nuclear Energy	\$3,397	\$2,965	\$49
Energy Efficiency and Renewable Energy			
Energy Efficiency and Renewable Energy			
Wind Energy	\$2,626	\$1,675	\$1,15
Geothermal Technologies	\$4,132	\$4,070	\$7
Hydrogen & Fuel Cell Technologies	\$6,324	\$5,479	\$1,95
Solar Energy	\$2,575	\$126	5
Vehicle Technologies	\$17,238	\$14,500	\$4,25
Building Technologies	\$38,017	\$31,718	\$8,39
Federal Energy Management Program	\$3,803	\$4,187	\$80
Weatherization	\$0	\$170	9
State Energy Program Grants	\$760	\$605	( (
Advanced Manufacturing	\$9,325	\$12,200	\$2,00
Strategic Programs	\$680 \$10,640	\$2,750 \$6,935	¢0.01
Bioenergy Technologies			\$3,35
Total Energy Efficiency and Renewable Energy	\$96,120	\$84,415	\$21,98
Total Energy Efficiency and Renewable Energy	\$96,120	\$84,415	\$21,98
Nuclear Waste Disposal			
Yucca Mountain and Interim Storage	<b>^</b>	**	<b>A C</b>
Yucca Mountain and Interim Storage	\$0	\$0	\$84

Laboratory Table

(Dollars In Thousands)

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rence Berkeley National Laboratory	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Total Nuclear Waste Disposal	\$0	\$0	\$840
Science			
Advanced Scientific Computing Research			
Advanced Scientific Computing Research	\$190,635	\$213,107	\$179,276
Basic Energy Sciences	¢,	<i> </i>	¢¢,¢
Basic Energy Sciences	\$174,716	\$225,806	\$174,244
Biological and Environmental Research	<i>•••••••••••••••••••••••••••••••••••••</i>	+,	<b>, ,</b>
Biological and Environmental Research	\$154,819	\$148,595	\$121,568
Fusion Energy Sciences	<i> </i>	<b>+</b> · · <b>· · · · · ·</b> · · · · · · · · · ·	<i>•</i> · - · ,• • •
Fusion Energy Sciences	\$0	\$895	\$1,115
High Energy Physics	φu	<i>Q</i> CCC	<i><b>Q</b></i> 1,110
High Energy Physics	\$78,190	\$82,427	\$53,678
Nuclear Physics	<i>\\</i> ,100	<i><b>402</b></i> , <b>121</b>	<i>\\\</i> 00,070
Nuclear Physics	\$27,821	\$26,121	\$19,759
Workforce Development for Teachers and Scientists	ψ27,021	ΨΖΟ, ΤΖΤ	ψ15,755
Workforce Development for Teachers and Scientists	\$1,111	\$0	\$0
Science Laboratories Infrastructure	ψι,τιτ	φŪ	ψŪ
Science Laboratories Infrastructure	\$54,850	\$5,000	\$11,000
Safeguards and Security	ψ04,000	\$5,000	φ11,000
	\$7.240	¢7 155	¢7 175
Safeguards and Security	\$7,240	\$7,155	\$7,175
Total Science	\$689,382	\$709,106	\$567,815
Office of Technology Transitions			
Office of Technology Transitions			
Office of Technology Transitions	\$55	\$55	\$55
Total Office of Technology Transitions	\$55	\$55	\$55
Weapons Activities			
Information technology and Cybersecurity			
Information technology and Cybersecurity	\$547	\$650	\$650
Infrastructure and Operations			
Infrastructure and Operations	\$1,100	\$0	\$0
Total Weapons Activities	\$1,647	\$650	\$650
Defense Nuclear Nonproliferation			
Defense Nuclear Nonproliferation R&D			
Defense Nuclear Nonproliferation R&D	\$7,564	\$7,423	\$7,708
Nuclear Counterterrorism and Incident Response	¢1,001	<i>•••</i> , · <b>=</b> •	<i> </i>
Nuclear Counterterrorism Incident Response	\$0	\$430	\$443
Nonproliferation and Arms Control	φu	ų loo	ψ110
Nonproliferation and Arms Control	\$613	\$590	\$631
Total Defense Nuclear Nonproliferation	\$8,177	\$8,443	\$8,782
	÷ - ; · · ·		<i></i>
Departmental Administration			
Strategic Partnership Projects	<b>A</b> O <b>E</b> OO	<b>AO 500</b>	AC 500
Strategic Partnership Projects	\$3,500	\$3,500	\$3,500

Laboratory Table

(Dollars In Thousands)

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wrence Berkeley National Laboratory	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Total Departmental Administration	\$3,500	\$3,500	\$3,500
Fossil Energy Research and Development			
CCS and Power Systems			
Carbon Capture	\$6,231	\$331	\$0
Carbon Storage	\$4,978	\$1,950	\$0
Cross Cutting Research	\$2,570	\$2,400	\$0
Total CCS and Power Systems	\$13,779	\$4,681	\$(
Advanced Coal Energy Systems and CCUS			
Carbon Capture Utilization and Storage	\$0	\$0	\$1,565
Crosscutting Research	\$0	\$0	\$2,494
Total Advanced Coal Energy Systems and CCUS	\$0	\$0	\$4,059
Natural Gas Technologies			
Natural Gas Technologies	\$1,720	\$1,625	\$700
Unconventional FE Technologies from Petroleum – Oil			
Unconventional FE Technologies from Petroleum – Oil	\$995	\$1,667	\$1,000
Total Fossil Energy Research and Development	\$16,494	\$7,973	\$5,759
al Lawrence Berkeley National Laboratory	\$866,714	\$856,638	\$615,572

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Laboratory Table (Dollars In Thousands) Page 38 of 129

rence Livermore National Laboratory	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Reques
Electricity	Total Endotod	Endotod	1.09000
Electricity			
Transmission Reliability and Resilience	\$2,985	\$1,180	\$9,000
Resilient Distribution Systems	\$1,875	\$175	\$1,300
Cybersecurity for Energy Delivery Systems	\$3,900	\$0	\$(
Energy Storage	\$400	\$0	\$
Infrastructure Security & Energy Restoration	\$100	\$0	\$(
Total Electricity	\$9,260	\$1,355	\$10,300
Total Electricity	\$9,260	\$1,355	\$10,300
Cybersecurity, Energy Security, and Emergency Resp			
Cybersecurity, Energy Security, and Emergency Resp			
Infrastructure Security and Energy Restoration (ISER)	\$0	\$350	\$4,000
CEDS	\$0	\$2,400	\$2,600
Total Cybersecurity, Energy Security, and Emergency Resp	\$0	\$2,750	\$6,600
Total Cybersecurity, Energy Security, and Emergency Resp	\$0	\$2,750	\$6,600
Nuclear Energy			
Fuel Cycle R & D			
Fuel Cycle R & D	\$793	\$791	\$100
Nuclear Energy Enabling Technologies			
Nuclear Energy Enabling Technologies	\$75	\$150	\$150
Reactors Concepts RD&D			
Reactors Concepts RD&D	\$0	\$0	\$50
Total Nuclear Energy	\$868	\$941	\$300
Energy Efficiency and Renewable Energy			
Energy Efficiency and Renewable Energy			
Wind Energy	\$874	\$771	\$592
Geothermal Technologies	\$2,523	\$1,183	\$2
Hydrogen & Fuel Cell Technologies	\$3,630	\$2,833	\$1,000
Solar Energy	\$300	\$434	\$83
Vehicle Technologies	\$4,959	\$3,800	\$1,00
Building Technologies	\$107	\$774	\$2
Advanced Manufacturing	\$7,293	\$5,200	\$5,200
Bioenergy Technologies	\$1,384	\$400	\$(
Total Energy Efficiency and Renewable Energy	\$21,070	\$15,395	\$8,678
Total Energy Efficiency and Renewable Energy	\$21,070	\$15,395	\$8,678
Science			
Advanced Scientific Computing Research	<b>**</b>	<b>A</b>	<b>.</b> ·
Advanced Scientific Computing Research	\$6,675	\$5,531	\$2,09
Basic Energy Sciences			
Basic Energy Sciences	\$926	\$1,804	\$1,772
Biological and Environmental Research Biological and Environmental Research	\$28,821	\$21,928	\$20,633

Laboratory Table

(Dollars In Thousands)

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rence Livermore National Laboratory	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Fusion Energy Sciences			
Fusion Energy Sciences	\$9,218	\$8,819	\$6,786
High Energy Physics			
High Energy Physics	\$3,940	\$2,315	\$1,000
Nuclear Physics			
Nuclear Physics	\$893	\$1,728	\$1,650
Workforce Development for Teachers and Scientists			
Workforce Development for Teachers and Scientists	\$482	\$0	\$C
Science Laboratories Infrastructure			
Science Laboratories Infrastructure	\$50	\$0	\$C
Total Science	\$51,005	\$42,125	\$33,938
Office of Technology Transitions			
Office of Technology Transitions			
Office of Technology Transitions	\$55	\$55	\$55
Total Office of Technology Transitions	\$55	\$55	\$55
Weapons Activities			
Directed Stockpile Work			
Directed Stockpile Work	\$280,989	\$335,223	\$416,482
Science			
Science Campaign	\$130,003	\$125,368	\$158,336
Engineering			
Engineering Campaign	\$27,808	\$36,914	\$49,977
Inertial Confinement Fusion Ignition High Yield			
Inertial Confinement Fusion Ignition High Yield Campaign	\$344,000	\$344,000	\$295,664
Advanced Simulation & Computing			
Advanced Simulation & Computing Campaign Defense Nuclear Security	\$310,093	\$210,721	\$277,736
Defense Nuclear Security	\$56,331	\$67,162	\$67,135
Information technology and Cybersecurity	φ00,00 T	φ07,10Z	φ07,13C
Information technology and Cybersecurity	\$16,115	\$14,122	\$18,515
Infrastructure and Operations	φ10,110	ψ14,122	φ10,010
Infrastructure and Operations	\$237,601	\$202,943	\$219,935
Advanced Manufacturing Development	<i> </i>	<i>\</i> ,	<i> </i>
Advanced Manufacturing Development	\$10,307	\$8,207	\$7,796
Total Weapons Activities	\$1,413,247	\$1,344,660	\$1,511,576
Other Defense Activities			
Environment, Health, Safety and Security			
Environment, Health, Safety and Security	\$3,050	\$3,050	\$3,050
Total Other Defense Activities	\$3,050	\$3,050	\$3,050
Defense Nuclear Nonproliferation			
·			
	\$53.640	\$50.898	\$55,513
Total Other Defense Activities Defense Nuclear Nonproliferation Defense Nuclear Nonproliferation R&D Defense Nuclear Nonproliferation R&D	\$3,050 \$53,640	\$3,050 \$50,898	

## Department Of Energy FY 2020 Congressional Budget Laboratory Table

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# (Dollars In Thousands)

rrence Livermore National Laboratory	FY 2018 Total Enacted	FY 2019 Enacted	FY 202 Reque
Nuclear Counterterrorism and Incident Response			•
Nuclear Counterterrorism Incident Response	\$43,633	\$42,791	\$48,01
Global Material Security			
Global Material Security	\$8,960	\$8,981	\$7,98
Material Management and Minimization			
Material Management and Minimization	\$70	\$100	9
Nonproliferation and Arms Control			
Nonproliferation and Arms Control	\$20,109	\$22,000	\$23,23
Total Defense Nuclear Nonproliferation	\$126,412	\$124,770	\$134,74
Fossil Energy Research and Development			
CCS and Power Systems			
Carbon Capture	\$3,849	\$475	:
Cross Cutting Research	\$279	\$0	
Total CCS and Power Systems	\$4,128	\$475	
Advanced Coal Energy Systems and CCUS			
Carbon Capture Utilization and Storage	\$0	\$0	\$1,2
Crosscutting Research	\$0	\$0	\$6
Total Advanced Coal Energy Systems and CCUS	\$0	\$0	\$1,9
Natural Gas Technologies			
Natural Gas Technologies	\$0	\$22	
Unconventional FE Technologies from Petroleum – Oil			
Unconventional FE Technologies from Petroleum – Oil	\$1,050	\$1,050	\$1,0
Total Fossil Energy Research and Development	\$5,178	\$1,547	\$2,9
Defense Environmental Cleanup			
NNSA Sites	A 475	¢4 704	<b>↑</b> 4 <b>¬</b>
Lawrence Livermore National Laboratory	\$1,175	\$1,704 \$25,000	\$1,7
LLNL Excess Facilities D&D	\$100,000	\$25,000	\$128,0
Total NNSA Sites	\$101,175	\$26,704	\$129,7
Total Defense Environmental Cleanup	\$101,175	\$26,704	\$129,7
I Lawrence Livermore National Laboratory	\$1,731,320	\$1,563,352	\$1,841,8

Departm FY 2020 Congre Laborator (Dollars In T	y Table	2/26/2019 3:01:52PM Page 41 of 129	
Lexington Office	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Other Defense Activities			
Environment, Health, Safety and Security			
Environment, Health, Safety and Security	\$200	\$200	\$200
Total Other Defense Activities	\$200	\$200	\$200
- Total Lexington Office	\$200	\$200	\$200

Laboratory Table

(Dollars In Thousands)

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ermore Site Office	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Reques
Nuclear Energy			•
Reactors Concepts RD&D			
Reactors Concepts RD&D	\$50	\$50	\$C
Total Nuclear Energy	\$50	\$50	\$0
Weapons Activities			
Infrastructure and Operations			
Infrastructure and Operations	\$846	\$0	\$0
Total Weapons Activities	\$846	\$0	\$0
Federal Salaries and Expenses			
Federal Salaries and Expenses			
Federal Salaries and Expenses	\$17,077	\$18,779	\$18,779
Total Federal Salaries and Expenses	\$17,077	\$18,779	\$18,779
I Livermore Site Office	\$17,973	\$18,829	\$18,779

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Laboratory Table (Dollars In Thousands) Page 43 of 129

Alamos National Laboratory	FY 2018 Total Enacted	FY 2019 Enacted	FY 202 Reques
Electricity		Endoted	Reques
Electricity			
Transmission Reliability and Resilience	\$2,122	\$1,200	\$6,00
Resilient Distribution Systems	\$1,779	\$100	\$70
Energy Storage	\$400	\$0	\$
Infrastructure Security & Energy Restoration	\$600	\$0	\$(
Total Electricity	\$4,901	\$1,300	\$6,700
Total Electricity	\$4,901	\$1,300	\$6,700
Cybersecurity, Energy Security, and Emergency Resp			
Cybersecurity, Energy Security, and Emergency Resp			
Infrastructure Security and Energy Restoration (ISER)	\$0	\$500	\$2,50
CEDS	\$0	\$1,000	\$
Total Cybersecurity, Energy Security, and Emergency Resp	\$0	\$1,500	\$2,500
Total Cybersecurity, Energy Security, and Emergency Resp	\$0	\$1,500	\$2,500
Nuclear Energy			
Fuel Cycle R & D			
Fuel Cycle R & D	\$11,708	\$10,730	\$2,80
Nuclear Energy Enabling Technologies			
Nuclear Energy Enabling Technologies	\$4,563	\$3,293	\$2,65
Reactors Concepts RD&D			
Reactors Concepts RD&D	\$3,575	\$6,260	\$2,500
Total Nuclear Energy	\$19,846	\$20,283	\$7,950
Energy Efficiency and Renewable Energy			
Energy Efficiency and Renewable Energy			
Wind Energy	\$345	\$212	\$
Geothermal Technologies	\$576	\$570	\$2
Hydrogen & Fuel Cell Technologies	\$5,552	\$5,741	\$1,00
Solar Energy	\$5,248	\$0	\$
Vehicle Technologies	\$388	\$350	\$
Building Technologies	\$291	\$291	\$5
Advanced Manufacturing	\$250	\$0	\$
Bioenergy Technologies	\$6,138	\$5,719	\$2,25
Total Energy Efficiency and Renewable Energy	\$18,788	\$12,883	\$3,32
Total Energy Efficiency and Renewable Energy	\$18,788	\$12,883	\$3,32
Nuclear Waste Disposal			
Yucca Mountain and Interim Storage			
Yucca Mountain and Interim Storage	\$0	\$0	\$840
Total Nuclear Waste Disposal	\$0	\$0	\$840
Science			
Advanced Scientific Computing Research			
Advanced Scientific Computing Research	\$3,003	\$3,626	\$2,13

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Alamos National Laboratory	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Reques
Basic Energy Sciences			
Basic Energy Sciences	\$18,121	\$23,337	\$22,358
Biological and Environmental Research			
Biological and Environmental Research	\$30,098	\$25,424	\$17,52
Fusion Energy Sciences			
Fusion Energy Sciences	\$3,607	\$3,087	\$3,61
High Energy Physics			
High Energy Physics	\$1,930	\$2,640	\$1,260
Nuclear Physics			
Nuclear Physics	\$9,111	\$9,360	\$8,79
Workforce Development for Teachers and Scientists			
Workforce Development for Teachers and Scientists	\$520	\$0	\$
Science Laboratories Infrastructure			
Science Laboratories Infrastructure	\$350	\$0	\$0
Total Science	\$66,740	\$67,474	\$55,679
Office of Technology Transitions			
Office of Technology Transitions			
Office of Technology Transitions	\$55	\$55	\$5
Total Office of Technology Transitions	\$55	\$55	\$5
Weapons Activities			
Directed Stockpile Work			
Directed Stockpile Work	\$683,924	\$692,467	\$770,39
Science	₩000,024	ψ032,+07	φ//0,000
Science Campaign	\$152,772	\$152,691	\$225,054
Engineering	ψ102,772	ψ10 <u>2</u> ,001	φ220,00
Engineering Campaign	\$32,221	\$42,342	\$49,36
Inertial Confinement Fusion Ignition High Yield	ΨΟΖ,ΖΖΙ	ψ <del>τ</del> Ζ, <b>Ο</b> τΖ	φ+3,00
Inertial Confinement Fusion Ignition High Yield Campaign	\$18,500	\$18,500	\$15,00
Advanced Simulation & Computing	ψ10,000	φ10,000	φ10,000
Advanced Simulation & Computing Campaign	\$199,048	\$205,752	\$191,74
Defense Nuclear Security	\$100,010	<i>\</i> 200,102	φτοτ, <i>τ</i> τ
Defense Nuclear Security	\$100,921	\$112,475	\$112,43
Information technology and Cybersecurity	\$100,0 <u>2</u> 1	φ11 <u>2</u> ,170	ψ112,10
Information technology and Cybersecurity	\$17,195	\$17,716	\$17,76
Infrastructure and Operations	ψ17,100	ψ17,710	ψ17,70
Infrastructure and Operations	\$583,041	\$640,693	\$576,88
Advanced Manufacturing Development	<i>\\\</i> 000,011	<b>\$010,000</b>	<i>\\\</i>
Advanced Manufacturing Development	\$6,285	\$7,179	\$8,778
Total Weapons Activities	\$1,793,907	\$1,889,815	\$1,967,409
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Other Defense Activities			
Environment, Health, Safety and Security	*^F	*~=	*~
Environment, Health, Safety and Security	\$95	\$95	\$9
Total Other Defense Activities	\$95	\$95	\$95

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Alamos National Laboratory	FY 2018 Total Enacted	FY 2019 Enacted	FY 202 Reques
Defense Nuclear Nonproliferation		Endeted	T C Q U C
Defense Nuclear Nonproliferation R&D			
Defense Nuclear Nonproliferation R&D	\$119,986	\$108,569	\$120,83
Nuclear Counterterrorism and Incident Response		. ,	
Nuclear Counterterrorism Incident Response	\$48,656	\$43,062	\$48,35
Global Material Security			
Global Material Security	\$41,474	\$44,618	\$35,97
Material Management and Minimization			
Material Management and Minimization	\$41,282	\$48,989	\$57,27
Nonproliferation and Arms Control			
Nonproliferation and Arms Control	\$22,132	\$21,881	\$22,48
Total Defense Nuclear Nonproliferation	\$273,530	\$267,119	\$284,92
Fossil Energy Research and Development			
CCS and Power Systems			
Carbon Capture	\$1,195	\$1,345	9
Carbon Storage	\$4,380	\$1,950	\$
Cross Cutting Research	\$930	\$0	\$
Total CCS and Power Systems	\$6,505	\$3,295	\$
Advanced Coal Energy Systems and CCUS	¥ - )	, - ,	
Carbon Capture Utilization and Storage	\$0	\$0	\$2,18
Crosscutting Research	\$0	\$0	\$66
Total Advanced Coal Energy Systems and CCUS	\$0	\$0	\$2,85
Natural Gas Technologies			
Natural Gas Technologies	\$800	\$800	9
Unconventional FE Technologies from Petroleum – Oil			
Unconventional FE Technologies from Petroleum – Oil	\$123	\$122	\$10
Total Fossil Energy Research and Development	\$7,428	\$4,217	\$2,95
Defense Environmental Cleanup NNSA Sites			
Los Alamos National Laboratory	\$220,000	\$220,000	\$195,46
Total Defense Environmental Cleanup	\$220,000	\$220,000	\$195,46
al Los Alamos National Laboratory	\$2,405,290	\$2,484,741	\$2,527,88

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Alamos Site Office	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request	
Weapons Activities Information technology and Cybersecurity				
Information technology and Cybersecurity	\$0	\$0	\$51	
Total Weapons Activities	\$0	\$0	\$51	
Federal Salaries and Expenses Federal Salaries and Expenses				
Federal Salaries and Expenses	\$15,446	\$17,665	\$17,727	
Total Federal Salaries and Expenses	\$15,446	\$17,665	\$17,727	
al Los Alamos Site Office	\$15,446	\$17,665	\$17,778	

FY 2020 Congr Laborator	Department Of Energy 2020 Congressional Budget Laboratory Table (Dollars In Thousands)		2019 52PM 47 of 129
Miamisburg Site	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Non-Defense Environmental Cleanup Small Sites			
Southwest Experimental Fast Oxide Reactor Total Non-Defense Environmental Cleanup	\$10,000	\$0 \$0	\$0 \$0
Total Miamisburg Site	\$10,000	\$0	\$0 \$0

	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)	3:0	2/26/2019 3:01:52PM Page 48 of 129	
Moab Site	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request	
Non-Defense Environmental Cleanup Small Sites Small Sites	\$37,884	\$45,000	\$35,693	
Total Non-Defense Environmental Cleanup	\$37,884	\$45,000	\$35,693	
Total Moab Site	\$37,884	\$45,000	\$35,693	

	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)	2/26/2019 3:01:52PM Page 49 of 129	
Morgantown Office	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Other Defense Activities Office of Legacy Management Legacy Management	\$16.211	\$18.274	\$17,737
Total Other Defense Activities	\$16,211	\$18,274	\$17,737
Total Morgantown Office	\$16,211	\$18,274	\$17,737

	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)	2/26/2019 3:01:52PM Page 50 of 129	
Mound Site	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Other Defense Activities Office of Legacy Management Legacy Management	\$16.027	\$15.027	\$13,497
Total Other Defense Activities	\$16,027	\$15,027	\$13,497
Total Mound Site	\$16,027	\$15,027	\$13,497

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onal Energy Technology Lab	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Electricity		Endoted	ricquoo
Electricity			
Transmission Reliability and Resilience	\$7,020	\$1,000	\$800
Resilient Distribution Systems	\$2,331	\$6,982	\$0
Cybersecurity for Energy Delivery Systems	\$34,141	\$0	\$0
Transformer Resilience and Advanced Components	\$6,139	\$0	\$750
Transmission Permitting and Technical Assistance	\$2,250	\$930	\$1,600
Infrastructure Security & Energy Restoration	\$1,464	\$0	\$0
Program Direction	\$6,154	\$3,176	\$3,574
Total Electricity	\$59,499	\$12,088	\$6,724
Total Electricity	\$59,499	\$12,088	\$6,724
Cybersecurity, Energy Security, and Emergency Resp			
Cybersecurity, Energy Security, and Emergency Resp			
Infrastructure Security and Energy Restoration (ISER)	\$0	\$1,400	\$5,250
CEDS	\$0	\$32,070	\$51,400
Program Direction	\$0	\$2,984	\$2,802
Total Cybersecurity, Energy Security, and Emergency Resp	\$0	\$36,454	\$59,452
Total Cybersecurity, Energy Security, and Emergency Resp	\$0	\$36,454	\$59,452
Energy Efficiency and Renewable Energy			
Energy Efficiency and Renewable Energy			
Program Direction	\$15,646	\$10,702	\$0
Geothermal Technologies	\$30,140	\$30,000	\$5,000
Vehicle Technologies	\$93,371	\$128,000	\$6,500
Building Technologies	\$13,729	\$17,750	\$45
Strategic Programs	\$1,000	\$0	\$0
Bioenergy Technologies	\$6,855	\$333	\$200
Total Energy Efficiency and Renewable Energy	\$160,741	\$186,785	\$11,745
Total Energy Efficiency and Renewable Energy	\$160,741	\$186,785	\$11,745
Weapons Activities			
Directed Stockpile Work			
Directed Stockpile Work	\$30,128	\$19,071	\$31,113
Science			
Science Campaign	\$540	\$550	\$550
Engineering			
Engineering Campaign	\$690	\$188	\$0
Advanced Manufacturing Development			
Advanced Manufacturing Development	\$1,212	\$295	\$0
Total Weapons Activities	\$32,570	\$20,104	\$31,663
Federal Salaries and Expenses			
Federal Salaries and Expenses			
Federal Salaries and Expenses	\$97	\$131	\$131
·	-	-	

FY 2020 Cong	ment Of Energy ressional Budget		52PM
	ory Table n Thousands)	Page	52 of 129
ional Energy Technology Lab	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Reques
Total Federal Salaries and Expenses	\$97	\$131	\$13 <sup>.</sup>
Departmental Administration			
Strategic Partnership Projects			
Strategic Partnership Projects	\$150	\$150	\$15
Total Departmental Administration	\$150	\$150	\$15
Fossil Energy Research and Development			
CCS and Power Systems			
Carbon Capture	\$41,791	\$42,187	\$
Carbon Storage	\$69,679	\$33,754	\$
Advanced Energy Systems	\$49,621	\$32,552	\$
Cross Cutting Research	\$37,634	\$43,435	\$
STEP (Supercritical CO2)	\$24,000	\$22,430	\$
Transformational Coal Pilots	\$35,000	\$25,000	\$
NETL Coal R&D	\$53,000	\$54,000	\$
Total CCS and Power Systems	\$310,725	\$253,358	\$
Advanced Coal Energy Systems and CCUS			
Advanced Energy Systems	\$0	\$0	\$219,89
Carbon Capture Utilization and Storage	\$0	\$0	\$61,05
NETL Coal Research and Development	\$0	\$0	\$38,00
Crosscutting Research	\$0	\$0	\$51,15
Total Advanced Coal Energy Systems and CCUS	\$0	\$0	\$370,09
Natural Gas Technologies			
Natural Gas Technologies	\$39,750	\$40,306	\$7,93
Program Direction			
NETL Program Direction	\$27,996	\$27,230	\$27,57
Unconventional FE Technologies from Petroleum – Oil			
Unconventional FE Technologies from Petroleum – Oil	\$33,786	\$13,238	\$13,35
NETL Research and Operations			
NETL Research and Operations	\$50,000	\$50,000	\$40,00
NETL Infrastructure			
NETL Infrastructure	\$45,000	\$45,000	\$43,10
Total Fossil Energy Research and Development	\$507,257	\$429,132	\$502,05
Strategic Petroleum Reserve			
SPR Geotechnical Analytical Support			
SPR - Facilities Development	\$456	\$446	\$46
Total Strategic Petroleum Reserve	\$456	\$446	\$466

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onal Renewable Energy Laboratory	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Reques
Electricity		Endoted	ricquet
Electricity			
Transmission Reliability and Resilience	\$1,185	\$410	\$2,000
Resilient Distribution Systems	\$4,054	\$2,075	\$3,000
Cybersecurity for Energy Delivery Systems	\$1,775	\$0	¢0,000 \$(
Transmission Permitting and Technical Assistance	\$38	\$85	\$100
Infrastructure Security & Energy Restoration	\$100	\$0	\$(
Total Electricity	\$7,152	\$2,570	\$5,100
Total Electricity	\$7,152	\$2,570	\$5,100
Cybersecurity, Energy Security, and Emergency Resp			
Cybersecurity, Energy Security, and Emergency Resp			
Infrastructure Security and Energy Restoration (ISER)	\$0	\$50	\$4,000
Total Cybersecurity, Energy Security, and Emergency Resp	\$0	\$50	\$4,000
Energy Efficiency and Renewable Energy			
Energy Efficiency and Renewable Energy			
Wind Energy	\$45,396	\$33,694	\$11,858
Facilities and Infrastructure (NREL)	\$92,000	\$97,000	\$107,000
Geothermal Technologies	\$1,765	\$758	\$200
Hydrogen & Fuel Cell Technologies	\$19,467	\$14,493	\$3,800
Water Power	\$14,099	\$9,657	\$4,090
Solar Energy	\$39,199	\$45,479	\$27,478
Vehicle Technologies	\$42,923	\$38,000	\$9,200
Building Technologies	\$19,507	\$15,764	\$1,250
Federal Energy Management Program	\$6,563	\$10,600	\$2,270
Weatherization	\$1,656	\$0	\$0
State Energy Program Grants	\$1,250	\$795	\$0
Advanced Manufacturing	\$10,552	\$1,825	\$1,000
Strategic Programs	\$6,011	\$5,250	\$(
Bioenergy Technologies	\$62,314	\$41,961	\$14,300
Total Energy Efficiency and Renewable Energy	\$362,702	\$315,276	\$182,446
Total Energy Efficiency and Renewable Energy	\$362,702	\$315,276	\$182,446
Science			
Basic Energy Sciences			
Basic Energy Sciences	\$7,741	\$12,600	\$12,620
Biological and Environmental Research			
Biological and Environmental Research	\$924	\$108	\$80
Workforce Development for Teachers and Scientists			
Workforce Development for Teachers and Scientists	\$1,156	\$0	\$0
Total Science	\$9,821	\$12,708	\$12,700
Office of Technology Transitions			
Office of Technology Transitions			
Office of Technology Transitions	\$993	\$993	\$993
	4000	<b>4000</b>	<b>4</b> 500

Department Of Energy		
FY 2020 Congressional Budget		
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(Dollars In Thousands)		

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onal Renewable Energy Laboratory	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Total Office of Technology Transitions	\$993	\$993	\$993
Departmental Administration			
Energy Policy and Systems Analysis			
Energy Policy and Systems	\$35	\$0	\$0
Analysis Office of Indian Energy			
Office of Indian Energy	\$2,583	\$0	\$0
Strategic Partnership Projects			
Strategic Partnership Projects	\$500	\$500	\$500
Total Departmental Administration	\$3,118	\$500	\$500
I National Renewable Energy Laboratory	\$383,786	\$332,097	\$205,739

FY 20	Department Of Energy )20 Congressional Budget Laboratory Table (Dollars In Thousands)	2/26/2019 3:01:52PM Page 55 of 129	
Naval Petroleum Reserve No 1	FY 2018	FY 2019	FY 2020
	Total Enacted	Enacted	Request
Naval Petroleum and Oil Shale Reserves			
Naval Petroleum and Oil Shale Reserves			
Productions Operations	\$16,600	\$8,000	\$12,000
Management	\$1,000	\$1,000	\$1,000
Total Naval Petroleum and Oil Shale Reserves	\$17,600	\$9,000	\$13,000
Total Naval Petroleum and Oil Shale Reserves	\$17,600	\$9,000	\$13,000
Total Naval Petroleum Reserve No 1	\$17,600	\$9,000	\$13,000

FY 2020 Co Labora	artment Of Energy ngressional Budget atory Table s In Thousands)		2019 52PM 56 of 129
Naval Petroleum Reserve No 3	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Naval Petroleum and Oil Shale Reserves Naval Petroleum and Oil Shale Reserves Productions Operations	\$1,600	\$0	\$0
Total Naval Petroleum and Oil Shale Reserves	\$1,600	\$0	\$0
- Total Naval Petroleum Reserve No 3	\$1,600	\$0	\$0

	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)	2/26/2019 3:01:52PM Page 57 of 129	
Naval Reactors Laboratory Field Office	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Weapons Activities Infrastructure and Operations Infrastructure and Operations	\$523	\$0	\$0
Total Weapons Activities	\$523	\$0	\$0
Total Naval Reactors Laboratory Field Office	\$523	\$0	\$0

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(Dollars In Thousands)

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FY 2018 FY 2019 FY 2020 Naval Research Laboratory **Total Enacted** Enacted Request Weapons Activities Science \$3,750 \$3,000 Science Campaign \$3,350 Inertial Confinement Fusion Ignition High Yield Inertial Confinement Fusion Ignition High Yield Campaign \$8,000 \$6,500 \$0 Advanced Simulation & Computing Advanced Simulation & Computing Campaign \$250 \$0 \$0 Total Weapons Activities \$11,600 \$10,250 \$3,000 Naval Reactors Naval Reactors Program \$20,651 Naval Reactors Program \$21,166 \$21,890 Total Naval Reactors \$20,651 \$21,166 \$21,890 Total Naval Research Laboratory \$32,251 \$24,890 \$31,416

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FY 2020

\$50

\$17,851

\$17,851

\$2,794

\$25,603

\$28,397

\$167,605

FY 2019

Laboratory Table (Dollars In Thousands)

,459 ,459	\$2,241 \$2,241	\$0 \$0
,	. ,	
,	. ,	· ·
,459	\$2,241	\$0
\$0	\$0	\$40,686
\$0	\$0	\$40,686
\$0	\$1,350	\$0
,074	\$80,559	\$80,527
,091	\$0	\$79
,165	\$81,909	\$80,606
\$15	\$15	\$15
\$15	\$15	\$15
\$50	\$50	\$50
	\$0 \$0 ,074 ,091 ,165 \$15 \$15	\$0     \$0       \$0     \$1,350       ,074     \$80,559       ,091     \$0       ,165     \$81,909       \$15     \$15       \$15     \$15

\$50

\$15,870

\$15,870

\$2,730

\$22,599

\$25,329

\$123,888

\$50

\$17,796

\$17,796

\$2,824

\$27,138

\$29,962

\$131,973

FY 2018

Total Federal Salaries and Expenses
Defense Environmental Cleanup
Program Direction
Nevada
NNSA Sites
Nevada
Total Defense Environmental Cleanup

Total Nevada Field Office

Nevada Field Office

Total Defense Nuclear Nonproliferation

Federal Salaries and Expenses Federal Salaries and Expenses Federal Salaries and Expenses

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ada National Cogurity Cita	FY 2018	FY 2019	FY 2020
ada National Security Site	Total Enacted	Enacted	Request
Weapons Activities			
Directed Stockpile Work			
Directed Stockpile Work	\$52,026	\$30,485	\$57,775
Science			
Science Campaign	\$52,719	\$43,904	\$67,960
Information technology and Cybersecurity			
Information technology and Cybersecurity	\$4,191	\$4,337	\$6,622
Infrastructure and Operations			
Infrastructure and Operations	\$211,423	\$197,707	\$236,514
Total Weapons Activities	\$320,359	\$276,433	\$368,871
Defense Nuclear Nonproliferation			
Defense Nuclear Nonproliferation R&D			
Defense Nuclear Nonproliferation R&D	\$34,779	\$20,930	\$30,539
Nuclear Counterterrorism and Incident Response			
Nuclear Counterterrorism Incident Response	\$57,329	\$56,123	\$59,041
Global Material Security			
Global Material Security	\$1,515	\$1,515	\$1,168
Nonproliferation and Arms Control			
Nonproliferation and Arms Control	\$157	\$271	\$296
Total Defense Nuclear Nonproliferation	\$93,780	\$78,839	\$91,044
Defense Environmental Cleanup			
NNSA Sites			
Nevada	\$37,537	\$32,998	\$35,134
Total Defense Environmental Cleanup	\$37,537	\$32,998	\$35,134
al Nevada National Security Site	\$451,676	\$388,270	\$495,049

	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)	2/26/2019 3:01:52PM Page 61 of 129	
Nevada Operations Office	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Science Basic Energy Sciences Basic Energy Sciences	\$482	\$0	\$0
Total Science	\$482	\$0	\$0
Total Nevada Operations Office	\$482	\$0	\$0

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Laboratory Table (Dollars In Thousands)

SA Albuquerque Complex	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Weapons Activities		Endoted	Request
Directed Stockpile Work			
Directed Stockpile Work	\$319,256	\$417,096	\$328,214
Science			
Science Campaign	\$55,150	\$75,578	\$36,556
Engineering			
Engineering Campaign	\$40,909	\$24,738	\$15,352
Inertial Confinement Fusion Ignition High Yield			
Inertial Confinement Fusion Ignition High Yield Campaign	\$18,171	\$25,463	\$14,973
Advanced Simulation & Computing			
Advanced Simulation & Computing Campaign	\$17,750	\$9,750	\$0
Defense Nuclear Security			
Defense Nuclear Security	\$7,533	\$7,573	\$7,767
Infrastructure and Operations			
Infrastructure and Operations	\$101,789	\$73,083	\$0
Secure Transportation Asset	<b>*</b> ***	<b></b>	<b>\$440,400</b>
Secure Transportation Asset	\$86,922	\$101,421	\$110,163
Advanced Manufacturing Development	¢0.040	¢0.004	¢40.770
Advanced Manufacturing Development	\$2,018	\$2,891 \$737,593	\$13,770 \$526,795
Other Defense Activities Environment, Health, Safety and Security Environment, Health, Safety and Security Enterprise Assessments Enterprise Assessments	\$1,000 \$150	\$1,000 \$150	\$1,000 \$150
Total Enterprise Assessments	\$150	\$150	\$150
Total Other Defense Activities	\$1,150	\$1,150	\$1,150
Defense Nuclear Nonproliferation			
Defense Nuclear Nonproliferation R&D			
Defense Nuclear Nonproliferation R&D	\$43,258	\$24,563	\$25,576
Nuclear Counterterrorism and Incident Response			
Nuclear Counterterrorism Incident Response	\$5,015	\$289	\$298
Global Material Security			
Global Material Security	\$96,329	\$98,232	\$86,575
Material Management and Minimization			
Material Management and Minimization	\$19,946	\$20,850	\$2,000
Nonproliferation and Arms Control			
Nonproliferation and Arms Control	\$2,403	\$2,438	\$2,487
Nonproliferation Construction	<b>MJ 770</b>	¢0.000	<u> </u>
Nonproliferation Construction	\$7,770	\$8,086	\$0
Total Defense Nuclear Nonproliferation	\$174,721	\$154,458	\$116,936

Departmental Administration

	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)	2/26/2019 3:01:52PM Page 63 of 129	
NNSA Albuquerque Complex	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Strategic Partnership Projects Strategic Partnership Projects	\$8,500	\$8,500	\$8,500
Total Departmental Administration	\$8,500	\$8,500	\$8,500
Defense Environmental Cleanup Program Direction Los Alamos	\$5,016	\$5,622	\$5,400
Total Defense Environmental Cleanup	\$5,016	\$5,622	\$5,400
Total NNSA Albuquerque Complex	\$838,885	\$907,323	\$658,781

Laboratory Table

(Dollars In Thousands)

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SA Production Office (NPO)	FY 2018	FY 2019	FY 2020
	Total Enacted	Enacted	Reques
Weapons Activities			
Directed Stockpile Work			
Directed Stockpile Work	\$0	\$0	\$4,000
Infrastructure and Operations			
Infrastructure and Operations	\$7,200	\$0	\$C
Total Weapons Activities	\$7,200	\$0	\$4,000
Defense Nuclear Nonproliferation			
Material Management and Minimization			
Material Management and Minimization	\$42,190	\$9,090	\$10,250
Total Defense Nuclear Nonproliferation	\$42,190	\$9,090	\$10,250
Federal Salaries and Expenses			
Federal Salaries and Expenses			
Federal Salaries and Expenses	\$22,851	\$24,635	\$24,820
Total Federal Salaries and Expenses	\$22,851	\$24,635	\$24,820
al NNSA Production Office (NPO)	\$72,241	\$33,725	\$39,070

Laboratory Table

(Dollars In Thousands)

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Ridge Institute for Science & Education	FY 2018 Total Enacted	FY 2019 Enacted	FY 202 Reques
Electricity		Endotod	rioquo
Electricity			
Cybersecurity for Energy Delivery Systems	\$178	\$0	\$
Transformer Resilience and Advanced Components	\$33	\$0	\$
Total Electricity	\$211	\$0	\$
Total Electricity	\$211	\$0	\$
Cybersecurity, Energy Security, and Emergency Resp Cybersecurity, Energy Security, and Emergency Resp			
Infrastructure Security and Energy Restoration (ISER)	\$0	\$210	\$1,60
Total Cybersecurity, Energy Security, and Emergency Resp	\$0	\$210	\$1,60
Energy Efficiency and Renewable Energy Energy Efficiency and Renewable Energy			
Geothermal Technologies	\$497	\$500	\$50
Solar Energy	\$1,347	\$0	\$
Vehicle Technologies	\$1,996	\$900	\$
Building Technologies	\$2,034	\$2,150	\$
Federal Energy Management Program	\$204	\$0	\$
Weatherization	\$150	\$450	\$
State Energy Program Grants	\$500	\$800	\$
Advanced Manufacturing	\$5,817	\$5,700	\$5,00
Bioenergy Technologies	\$1,241	\$0	\$
Total Energy Efficiency and Renewable Energy	\$13,786	\$10,500	\$5,50
Total Energy Efficiency and Renewable Energy	\$13,786	\$10,500	\$5,50
Science			
Basic Energy Sciences			
Basic Energy Sciences	\$600	\$0	\$
Biological and Environmental Research			
Biological and Environmental Research	\$3,874	\$1,478	\$1,02
Fusion Energy Sciences			
Fusion Energy Sciences	\$300	\$750	\$1,00
High Energy Physics			
High Energy Physics	\$1,523	\$0	\$
Nuclear Physics			
Nuclear Physics	\$697	\$697	\$63
Workforce Development for Teachers and Scientists			
Workforce Development for Teachers and Scientists	\$9,322	\$0	\$
Safeguards and Security			
Safeguards and Security	\$1,929	\$1,892	\$1,89
Total Science	\$18,245	\$4,817	\$4,55
Office of Technology Transitions			
Office of Technology Transitions			
Office of Technology Transitions	\$220	\$220	\$22
	·		

Laboratory Table

(Dollars In Thousands)

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FY 2018 FY 2019 FY 2020 Oak Ridge Institute for Science & Education **Total Enacted** Enacted Request Total Office of Technology Transitions \$220 \$220 \$220 Weapons Activities Science Science Campaign \$200 \$100 \$100 Inertial Confinement Fusion Ignition High Yield Inertial Confinement Fusion Ignition High Yield Campaign \$60 \$260 \$260 Total Weapons Activities \$360 \$260 \$360 Other Defense Activities Environment, Health, Safety and Security Environment, Health, Safety and Security \$1,305 \$1,305 \$1,305 Total Other Defense Activities \$1,305 \$1,305 \$1,305 Defense Nuclear Nonproliferation Nuclear Counterterrorism and Incident Response Nuclear Counterterrorism Incident Response \$4,156 \$1,860 \$1,916 \$1,916 Total Defense Nuclear Nonproliferation \$4,156 \$1,860 Federal Salaries and Expenses Federal Salaries and Expenses Federal Salaries and Expenses \$629 \$629 \$629 Total Federal Salaries and Expenses \$629 \$629 \$629 **Departmental Administration** Energy Policy and Systems Analysis **Energy Policy and Systems Analysis** \$624 \$0 \$0 Total Departmental Administration \$624 \$0 \$0 Total Oak Ridge Institute for Science & Education \$39,436 \$19,901 \$16,083

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Laboratory Table (Dollars In Thousands) Page 67 of 129

Dideo Netional Laboratory	FY 2018	FY 2019	FY 2020
Ridge National Laboratory	Total Enacted	Enacted	Reques
Electricity			
Electricity			
Transmission Reliability and Resilience	\$5,379	\$4,450	\$12,500
Resilient Distribution Systems	\$6,386	\$2,422	\$5,000
Cybersecurity for Energy Delivery Systems	\$700	\$0	\$0
Energy Storage	\$3,750	\$3,000	\$3,000
Transformer Resilience and Advanced Components	\$501	\$0	\$3,000
Transmission Permitting and Technical Assistance	\$350	\$100	\$0
Infrastructure Security & Energy Restoration	\$2,765	\$0	\$0
Total Electricity	\$19,831	\$9,972	\$23,500
Total Electricity	\$19,831	\$9,972	\$23,500
Cybersecurity, Energy Security, and Emergency Resp			
Cybersecurity, Energy Security, and Emergency Resp			
Infrastructure Security and Energy Restoration (ISER)	\$0	\$2,950	\$5,500
CEDS	\$0	\$10,800	\$1,300
Total Cybersecurity, Energy Security, and Emergency Resp	\$0	\$13,750	\$6,800
Total Cybersecurity, Energy Security, and Emergency Resp	\$0	\$13,750	\$6,800
Nuclear Energy			
Fuel Cycle R & D			
Fuel Cycle R & D	\$23,429	\$17,351	\$4,100
Radiological Facilities Management			
Radiological Facilities Management	\$19,982	\$19,985	\$0
Nuclear Energy Enabling Technologies			
Nuclear Energy Enabling Technologies	\$28,903	\$22,195	\$25,385
Reactors Concepts RD&D			
Reactors Concepts RD&D	\$19,341	\$17,365	\$12,000
International Nuclear Energy Cooperation	· •		
International Nuclear Energy Cooperation	\$530	\$120	\$0
Total Nuclear Energy	\$92,185	\$77,016	\$41,485

Energy Efficiency and Renewable Energy

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Ridge National Laboratory	FY 2018 Total Enacted	FY 2019 Enacted	FY 202
Energy Efficiency and Renewable Energy		Enacieu	Reque
Wind Energy	\$4,234	\$925	\$21
Geothermal Technologies	\$2,276	\$320	\$2
Hydrogen & Fuel Cell Technologies	\$3,073	\$2,609	\$ <del>-</del> \$50
Water Power	\$6,829	\$5,749	\$5,11
Solar Energy	\$5,248	\$2,581	\$28
Vehicle Technologies	\$55,330	\$52,000	\$12,30
Building Technologies	\$25,559	\$15,316	\$5,55
Federal Energy Management Program	\$4,159	\$3,829	\$1,14
Weatherization	\$837	\$1,025	\$
State Energy Program Grants	\$30	\$30	\$
Advanced Manufacturing	\$48,610	\$32,025	\$10,50
Bioenergy Technologies	\$10,515	\$7,894	\$4,35
Total Energy Efficiency and Renewable Energy	\$166,700	\$124,303	\$39,99
Total Energy Efficiency and Renewable Energy	\$166,700	\$124,303	\$39,99
Nuclear Waste Disposal			
Yucca Mountain and Interim Storage			
Yucca Mountain and Interim Storage	\$0	\$0	\$1,13
Total Nuclear Waste Disposal	\$0	\$0	\$1,13
Science			
Advanced Scientific Computing Research			
Advanced Scientific Computing Research	\$378,431	\$446,543	\$405,46
Basic Energy Sciences		. ,	
Basic Energy Sciences	\$370,246	\$410,799	\$322,27
Biological and Environmental Research		. ,	. ,
Biological and Environmental Research	\$81,772	\$84,620	\$57,31
Fusion Energy Sciences	÷- ,	, - ,	¥ - )-
Fusion Energy Sciences	\$146,127	\$162,283	\$134,65
High Energy Physics	<b>↓.</b> ,. <b>_</b> .	<i> </i>	¢.0.,00
High Energy Physics	\$500	\$920	\$37
Nuclear Physics		•	• -
Nuclear Physics	\$10,421	\$18,206	\$23,47
Science Laboratories Infrastructure	φ10,1 <u>2</u> 1	ψ10,200	<i>\\\</i> 20,11
Science Laboratories Infrastructure	\$30,800	\$51,000	\$45,00
Safeguards and Security	<i>400,000</i>	<i><b>401,000</b></i>	φ10,00
Safeguards and Security	\$12,215	\$12,864	\$29,97
Total Science	\$1,030,512	\$1,187,235	\$1,018,52
Office of Technology Transitions			
Office of Technology Transitions			
Office of Technology Transitions	\$55	\$55	\$5
	φυυ		
Total Office of Technology Transitions	\$55	\$55	\$5

Laboratory Table

(Dollars In Thousands)

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Ridge National Laboratory	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Directed Stockpile Work			
Directed Stockpile Work	\$42,515	\$46,807	\$38,700
Science			
Science Campaign	\$262	\$160	\$200
Advanced Simulation & Computing			
Advanced Simulation & Computing Campaign	\$180	\$30	\$0
Infrastructure and Operations			
Infrastructure and Operations	\$16,594	\$13,660	\$5,033
Total Weapons Activities	\$59,551	\$60,657	\$43,933
Other Defense Activities			
Environment, Health, Safety and Security			
Environment, Health, Safety and Security	\$1,035	\$1,035	\$1,035
Total Other Defense Activities	\$1,035	\$1,035	\$1,035
Defense Nuclear Nonproliferation			
Defense Nuclear Nonproliferation R&D			
Defense Nuclear Nonproliferation R&D	\$30,843	\$32,429	\$34,417
Nuclear Counterterrorism and Incident Response			
Nuclear Counterterrorism Incident Response	\$3,396	\$4,555	\$7,191
Global Material Security			
Global Material Security	\$18,607	\$19,281	\$16,163
Material Management and Minimization	<b>*•</b> • • • •	<b>A7</b> 4 4 4	<b>*</b> 44.050
Material Management and Minimization	\$6,641	\$7,441	\$11,350
Nonproliferation and Arms Control	¢00 170	¢20.940	¢00 600
Nonproliferation and Arms Control	\$22,178	\$20,849	\$22,622
Total Defense Nuclear Nonproliferation	\$81,665	\$84,555	\$91,743
Federal Salaries and Expenses			
Federal Salaries and Expenses			
Federal Salaries and Expenses	\$275	\$275	\$275
Total Federal Salaries and Expenses	\$275	\$275	\$275
Fossil Energy Research and Development			
CCS and Power Systems			
Carbon Capture	\$500	\$0	\$0
Carbon Storage	\$235	\$50	\$0
Advanced Energy Systems	\$500	\$500	\$0
Cross Cutting Research	\$3,724	\$0	\$0
Total CCS and Power Systems	\$4,959	\$550	\$0
Advanced Coal Energy Systems and CCUS			
Crosscutting Research	\$0	\$0	\$667
Natural Gas Technologies			
Natural Gas Technologies	\$450	\$450	\$0
Total Fossil Energy Research and Development	\$5,409	\$1,000	\$667

	Department Of Energy FY 2020 Congressional Budget		/2019 I:52PM
	Laboratory Table (Dollars In Thousands)	Page	e 70 of 129
Ridge National Laboratory	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Defense Environmental Cleanup Oak Ridge Reservation			
Nuclear Facility D & D, ORNL	\$81,110	\$154,000	\$61,807
U233 Disposition Program	\$50,311	\$52,300	\$45,000
OR Excess Facilities D&D	\$125,000	\$0	\$0
Total Oak Ridge Reservation	\$256,421	\$206,300	\$106,807
Total Defense Environmental Cleanup	\$256,421	\$206,300	\$106,807
Strategic Petroleum Reserve SPR Econometric Modelling Support			
Management	\$560	\$570	\$570
Total Strategic Petroleum Reserve	\$560	\$570	\$570
al Oak Ridge National Laboratory	\$1,714,199	\$1,766,723	\$1,376,521

FY 2	Department Of Energy 2020 Congressional Budget Laboratory Table (Dollars In Thousands)	2/26/2019 3:01:52PM Page 71 of 129	
Oak Ridge National Laboratory Site Office	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Science Program Direction Program Direction	\$5,465	\$5,551	\$5,247
Total Science	\$5,465	\$5,551	\$5,247
- Total Oak Ridge National Laboratory Site Office	\$5,465	\$5,551	\$5,247

Laboratory Table

(Dollars In Thousands)

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Ridge Office	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Reques
Nuclear Energy			
Fuel Cycle R & D			
Fuel Cycle R & D	\$0	\$35,000	\$37,040
Program Direction-NE			
Program Direction-NE	\$596	\$1,646	\$1,646
Total Nuclear Energy	\$596	\$36,646	\$38,686
Energy Efficiency and Renewable Energy			
Energy Efficiency and Renewable Energy			
Hydrogen & Fuel Cell Technologies	\$1,954	\$721	\$500
Total Energy Efficiency and Renewable Energy	\$1,954	\$721	\$500
Science			
Basic Energy Sciences			
Basic Energy Sciences	\$995	\$0	\$0
Biological and Environmental Research			
Biological and Environmental Research	\$995	\$0	\$0
Nuclear Physics			
Nuclear Physics	\$24	\$50	\$0
Science Laboratories Infrastructure			
Science Laboratories Infrastructure	\$9,182	\$6,434	\$8,800
Safeguards and Security			
Safeguards and Security	\$22,074	\$23,472	\$4,558
Program Direction			
Program Direction	\$25,082	\$24,177	\$23,344
Total Science	\$58,352	\$54,133	\$36,702
Other Defense Activities			
Environment, Health, Safety and Security			
Environment, Health, Safety and Security	\$2,795	\$2,795	\$2,795
Total Other Defense Activities	\$2,795	\$2,795	\$2,795
Departmental Administration			
Strategic Partnership Projects			
Strategic Partnership Projects	\$9,025	\$9,025	\$9,025
Chief Financial Officer			
Program Direction	\$1,484	\$1,484	\$1,484
Total Departmental Administration	\$10,509	\$10,509	\$10,509
Defense Environmental Cleanup			
Oak Ridge Reservation			
Nuclear Facility D & D, Y-12	\$27,100	\$86,000	\$64,269
Program Direction			
Oak Ridge	\$15,065	\$15,356	\$14,460
Total Defense Environmental Cleanup	\$42,165	\$101,356	\$78,729

Department Of Energy FY 2020 Congressional Budget		2/26/2 3:01:	2019 52PM
	Laboratory Table (Dollars In Thousands)	Page	73 of 129
Oak Ridge Office	FY 2018	FY 2019	FY 2020
	Total Enacted	Enacted	Request
Total Oak Ridge Office	\$116,371	\$206,160	\$167,921

	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)	3:01:	2/26/2019 3:01:52PM Page 74 of 129	
Oak Ridge Reservation	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request	
Defense Environmental Cleanup Oak Ridge Reservation Clean-up and Disposition	\$71,000	\$74,000	\$82,000	
Total Defense Environmental Cleanup	\$71,000	\$74,000	\$82,000	
Total Oak Ridge Reservation	\$71,000	\$74,000	\$82,000	

Departm FY 2020 Congre Laborator (Dollars In T	y Table	2/26/2 3:01:{ Page	
Oak Ridge Reservation (Off-Site)	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Defense Environmental Cleanup Oak Ridge Reservation	\$5 605	¢5 700	¢4.840
ORR Community and Regulatory Support	\$5,605 \$5,605	\$5,700 \$5,700	\$4,819 \$4,819
Total Oak Ridge Reservation (Off-Site)	\$5,605	\$5,700	\$4,819

	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)	2/26/2019 3:01:52PM Page 76 of 129	
Office of River Protection	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Defense Environmental Cleanup			
Office of River Protection			
Tank Farm Activities	\$719,000	\$771,947	\$677,460
Waste Treatment Plant	\$748,000	\$745,000	\$705,000
ORP Test Bed Initiative	\$0	\$0	\$10,000
Total Office of River Protection Program Direction	\$1,467,000	\$1,516,947	\$1,392,460
Office of River Protection	\$29,907	\$32,731	\$32,274
Total Defense Environmental Cleanup	\$1,496,907	\$1,549,678	\$1,424,734
Total Office of River Protection	\$1,496,907	\$1,549,678	\$1,424,734

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e of Scientific & Technical Information	FY 2018 Total Enacted	FY 2019	FY 202
Science	TOTAL ENACIED	Enacted	Reques
Advanced Scientific Computing Research			
Advanced Scientific Computing Research	\$148	\$155	\$15
Basic Energy Sciences	ψΠο	φ100	φισ
Basic Energy Sciences	\$221	\$0	\$
Biological and Environmental Research		<b>,</b> -	,
Biological and Environmental Research	\$188	\$154	\$14
Fusion Energy Sciences			
Fusion Energy Sciences	\$148	\$0	\$
High Energy Physics			
High Energy Physics	\$32	\$0	\$
Nuclear Physics			
Nuclear Physics	\$171	\$285	\$12
Safeguards and Security			
Safeguards and Security	\$783	\$759	\$75
Program Direction			
Program Direction	\$9,222	\$9,120	\$8,93
Total Science	\$10,913	\$10,473	\$10,12
Weapons Activities			
Science			
Science Campaign	\$220	\$212	\$22
Information technology and Cybersecurity			
Information technology and Cybersecurity	\$213	\$213	\$21
Total Weapons Activities	\$433	\$425	\$43
Other Defense Activities			
Environment, Health, Safety and Security			
Environment, Health, Safety and Security	\$300	\$300	\$30
Total Other Defense Activities	\$300	\$300	\$30
Defense Nuclear Nonproliferation			
Defense Nuclear Nonproliferation R&D			
Defense Nuclear Nonproliferation R&D	\$38	\$40	\$4
· · · · · · · · · · · · · · · · · · ·			
Total Defense Nuclear Nonproliferation	\$38	\$40	\$4
Departmental Administration			
Energy Policy and Systems Analysis			
	\$26	\$0	\$
Energy Policy and Systems Analysis			
Energy Policy and Systems Analysis Total Departmental Administration	\$26	\$0	\$

FY 2020 Congr Laborato	ment Of Energy ressional Budget ry Table Thousands)	2/26/2019 3:01:52PM Page 78 of 129	
Ohio Field Office	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Other Defense Activities Environment, Health, Safety and Security Environment, Health, Safety and Security	\$5	\$5	\$5
Total Other Defense Activities	\$5	\$5	\$5
- Total Ohio Field Office	\$5	\$5	\$5

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(Dollars In Thousa	ands)		
fic Northwest National Laboratory	FY 2018	FY 2019	FY 202
	Total Enacted	Enacted	Reque
Electricity			
Electricity	¢0.540	<b>ФЕ 000</b>	¢40.00
Transmission Reliability and Resilience	\$8,513	\$5,060 \$6,600	\$13,00 \$0,00
Resilient Distribution Systems	\$12,169 \$10,051	\$6,609 \$0	\$9,00
Cybersecurity for Energy Delivery Systems Energy Storage	\$10,951 \$15,000	\$0 \$15,400	\$ \$20,00
Transformer Resilience and Advanced Components	\$15,000	\$15,400 \$0	\$20,00 \$95
Transmission Permitting and Technical Assistance	\$93 \$715	\$950	\$90 \$1,50
Infrastructure Security & Energy Restoration	\$1,324	\$950 \$0	φ1,50 \$
Total Electricity	\$48,767	\$28,019	\$44,45
Total Electricity	\$48,767	\$28,019	\$44,45
Cybersecurity, Energy Security, and Emergency Resp			
Cybersecurity, Energy Security, and Emergency Resp			
Infrastructure Security and Energy Restoration (ISER)	\$0	\$425	\$3,50
CEDS	\$0	\$6,050	\$3,30
Total Cybersecurity, Energy Security, and Emergency Resp	\$0	\$6,475	\$6,80
Total Cybersecurity, Energy Security, and Emergency Resp	\$0	\$6,475	\$6,80
Nuclear Energy			
Fuel Cycle R & D			
Fuel Cycle R & D	\$14,180	\$10,214	\$1,20
Nuclear Energy Enabling Technologies			
Nuclear Energy Enabling Technologies	\$644	\$80	\$8
Reactors Concepts RD&D			
Reactors Concepts RD&D	\$600	\$580	\$60
International Nuclear Energy Cooperation			
International Nuclear Energy Cooperation	\$50	\$0	9
Total Nuclear Energy	\$15,474	\$10,874	\$1,88
Energy Efficiency and Renewable Energy			
Energy Efficiency and Renewable Energy			
Wind Energy	\$8,613	\$6,501	\$1,81
Geothermal Technologies	\$1,970	\$1,228	\$2
Hydrogen & Fuel Cell Technologies	\$8,304	\$4,904	\$1,50
Water Power	\$10,312	\$11,233	\$4,15
Solar Energy	\$1,055	\$48	9
Vehicle Technologies	\$17,851	\$14,500	\$7,25
Building Technologies	\$33,947	\$22,898	\$4,32
Federal Energy Management Program	\$2,797	\$1,815	\$1,14
State Energy Program Grants	\$35	\$0	9
Advanced Manufacturing	\$405	\$300	\$30
Strategic Programs	\$190	\$250	9
Bioenergy Technologies	\$17,920	\$13,877	\$3,90
Total Energy Efficiency and Renewable Energy	\$103,399	\$77,554	\$24,41

fic Northwest National Laboratory 	FY 2018 Total Enacted \$103,399	FY 2019 Enacted	FY 2020
	\$103,399		Request
Nuclear Waste Disposal		\$77,554	\$24,414
Yucca Mountain and Interim Storage Yucca Mountain and Interim Storage	\$0	\$0	\$910
Total Nuclear Waste Disposal	\$0	\$0	\$910
Science			
Advanced Scientific Computing Research			
Advanced Scientific Computing Research Basic Energy Sciences	\$2,881	\$5,597	\$2,460
Basic Energy Sciences Biological and Environmental Research	\$21,069	\$33,216	\$33,205
Biological and Environmental Research Fusion Energy Sciences	\$113,735	\$117,434	\$75,930
Fusion Energy Sciences High Energy Physics	\$1,413	\$250	\$1,413
High Energy Physics Nuclear Physics	\$2,725	\$1,460	\$775
Nuclear Physics	\$500	\$500	\$0
Workforce Development for Teachers and Scientists Workforce Development for Teachers and Scientists Science Laboratories Infrastructure	\$1,020	\$0	\$0
Science Laboratories Infrastructure Safeguards and Security	\$20,000	\$24,000	\$9,000
Safeguards and Security	\$12,654	\$12,459	\$12,759
Total Science	\$175,997	\$194,916	\$135,542
Office of Technology Transitions			
Office of Technology Transitions			
Office of Technology Transitions	\$155	\$155	\$155
Total Office of Technology Transitions	\$155	\$155	\$155
Weapons Activities			
Directed Stockpile Work			
Directed Stockpile Work Science	\$37,093	\$40,728	\$58,099
Science Campaign	\$0	\$350	\$500
Engineering Engineering Campaign	\$0	\$0	\$1,500
Infrastructure and Operations	ΨΟ	φυ	ψ1,000
Infrastructure and Operations	\$8,367	\$6,275	\$3,150
Total Weapons Activities	\$45,460	\$47,353	\$63,249
Other Defense Activities		·	·
Environment, Health, Safety and Security			
Environment, Health, Safety and Security	\$1,905	\$1,905	\$1,905

# Department Of Energy FY 2020 Congressional Budget Laboratory Table

(Dollars In Thousands)

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fic Northwest National Laboratory	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Reques
Total Other Defense Activities	\$1,905	\$1,905	\$1,905
Defense Nuclear Nonproliferation			
Defense Nuclear Nonproliferation R&D			
Defense Nuclear Nonproliferation R&D	\$58,098	\$51,330	\$35,282
Nuclear Counterterrorism and Incident Response			
Nuclear Counterterrorism Incident Response	\$4,934	\$3,935	\$3,808
Global Material Security			
Global Material Security	\$136,508	\$141,201	\$119,961
Material Management and Minimization			
Material Management and Minimization	\$8,452	\$5,680	\$44,165
Nonproliferation and Arms Control			
Nonproliferation and Arms Control	\$22,668	\$21,907	\$23,116
Total Defense Nuclear Nonproliferation	\$230,660	\$224,053	\$226,332
Federal Salaries and Expenses			
Federal Salaries and Expenses			
Federal Salaries and Expenses	\$2,996	\$0	\$1,400
Total Federal Salaries and Expenses	\$2,996	\$0	\$1,400
Departmental Administration			
Strategic Partnership Projects			
Strategic Partnership Projects	\$10,325	\$10,325	\$10,325
Total Departmental Administration	\$10,325	\$10,325	\$10,325
Fossil Energy Research and Development			
CCS and Power Systems			
Carbon Capture	\$4,673	\$829	\$C
Cross Cutting Research	\$1,174	\$320	\$C
Total CCS and Power Systems	\$5,847	\$1,149	\$0
Advanced Coal Energy Systems and CCUS	\$J,047	φ1,149	φυ
Advanced Energy Systems	\$0	\$0	\$405
Carbon Capture Utilization and Storage	\$0 \$0	\$0 \$0	\$2.551
Crosscutting Research	\$0 \$0	\$0 \$0	¢2,551 \$667
Total Advanced Coal Energy Systems and CCUS	\$0	\$0	\$3,623
Natural Gas Technologies	ψΟ	ψυ	ψ0,020
Natural Gas Technologies	\$600	\$600	\$100
Unconventional FE Technologies from Petroleum – Oil	<b>\$600</b>	<b>\$</b> 000	ψroc
	\$500	\$0	\$C
Unconventional FE Technologies from Petroleum – Oil	4000		
-	\$6,947	\$1,749	\$3,723

	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)	2/26/2019 3:01:52PM Page 82 of 129	
Pacific Northwest Site Office	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Science			
Program Direction			
Program Direction	\$4,942	\$5,084	\$4,987
Total Science	\$4,942	\$5,084	\$4,987
Total Pacific Northwest Site Office	\$4,942	\$5,084	\$4,987

	Department Of Energy ) Congressional Budget	2/26/2 3:01:	2019 52PM
	aboratory Table Jollars In Thousands)	Page	83 of 129
ducah Gaseous Diffusion Plant	FY 2018	FY 2019	FY 2020
	Total Enacted	Enacted	Request
Non-Defense Environmental Cleanup			
Gaseous Diffusion Plants			
Gaseous Diffusion Plants	\$50,345	\$50,345	\$51,450
Total Non-Defense Environmental Cleanup	\$50,345	\$50,345	\$51,450
Uranium Enrichment Decon. & Decom. Fund Uranium Enrichment D&D Fund			
Pens & Comm & Reg Support Paducah	\$1,725	\$2,102	\$2,094
Paducah Gaseous Diffusion Plant	\$205,530	\$206,000	\$207,215
Total Uranium Enrichment D&D Fund	\$207,255	\$208,102	\$209,309
Total Uranium Enrichment Decon. & Decom. Fund	\$207,255	\$208,102	\$209,309
Defense Environmental Cleanup			
Program Direction			
Paducah/Portsmouth	\$13,303	\$16,025	\$12,302
Safeguards and Security			
Paducah	\$15,556	\$15,577	\$15,889
Total Defense Environmental Cleanup	\$28,859	\$31,602	\$28,191
al Paducah Gaseous Diffusion Plant	\$286,459	\$290,049	\$288,950

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tex Plant	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Weapons Activities			· · ·
Directed Stockpile Work			
Directed Stockpile Work	\$381,312	\$387,562	\$440,968
Engineering			
Engineering Campaign	\$2,212	\$2,212	\$5,054
Defense Nuclear Security			
Defense Nuclear Security	\$132,744	\$138,903	\$138,847
Information technology and Cybersecurity			
Information technology and Cybersecurity	\$6,862	\$6,765	\$7,573
Infrastructure and Operations			
Infrastructure and Operations	\$260,370	\$273,885	\$348,773
Secure Transportation Asset			
Secure Transportation Asset	\$7,726	\$7,317	\$7,76 <sup>2</sup>
Advanced Manufacturing Development			
Advanced Manufacturing Development	\$629	\$863	\$1,187
Total Weapons Activities	\$791,855	\$817,507	\$950,163
Other Defense Activities			
Environment, Health, Safety and Security			
Environment, Health, Safety and Security	\$10	\$10	\$10
Total Other Defense Activities	\$10	\$10	\$10
Defense Nuclear Nonproliferation			
Nuclear Counterterrorism and Incident Response			
Nuclear Counterterrorism Incident Response	\$1,431	\$2,456	\$2,530
Material Management and Minimization			
Material Management and Minimization	\$2,000	\$5,100	\$6,736
Total Defense Nuclear Nonproliferation	\$3,431	\$7,556	\$9,266
al Pantex Plant	\$795,296	\$825,073	\$959,439

	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)	2/26/2019 3:01:52PM Page 85 of 129	
Pinellas Site	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Other Defense Activities Office of Legacy Management Legacy Management	\$4.070	\$5.545	\$3,933
Total Other Defense Activities	\$4,070	\$5,545	\$3,933
Total Pinellas Site	\$4,070	\$5,545	\$3,933

FY 202	Department Of Energy 20 Congressional Budget	2/26/2 3:01:	2019 52PM
	aboratory Table (Dollars In Thousands)		86 of 129
smouth Gaseous Diffusion Plant	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Non-Defense Environmental Cleanup		Enacled	Request
Gaseous Diffusion Plants			
Gaseous Diffusion Plants	\$50,959	\$50,959	\$51,623
Total Non-Defense Environmental Cleanup	\$50,959	\$50,959	\$51,623
Uranium Enrichment Decon. & Decom. Fund Uranium Enrichment D&D Fund			
Pens & Comm & Reg Support Portsmouth	\$1,795	\$1,670	\$2,013
Portsmouth Gaseous Diffusion Plant	\$381,271	\$408,099	\$355,661
Total Uranium Enrichment D&D Fund	\$383,066	\$409,769	\$357,674
Total Uranium Enrichment Decon. & Decom. Fund	\$383,066	\$409,769	\$357,674
Other Defense Activities			
Office of Legacy Management			
Legacy Management	\$5,900	\$5,700	\$5,100
Total Other Defense Activities	\$5,900	\$5,700	\$5,100
Defense Environmental Cleanup			
Safeguards and Security			
Portsmouth	\$14,259	\$15,078	\$16,690
Total Defense Environmental Cleanup	\$14,259	\$15,078	\$16,690
I Portsmouth Gaseous Diffusion Plant	\$454,184	\$481,506	\$431,087

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nceton Plasma Physics Laboratory	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Science		Endotod	1104000
Advanced Scientific Computing Research			
Advanced Scientific Computing Research	\$385	\$385	\$335
Fusion Energy Sciences			
Fusion Energy Sciences	\$104,483	\$107,770	\$67,207
Workforce Development for Teachers and Scientists			
Workforce Development for Teachers and Scientists	\$398	\$0	\$C
Safeguards and Security			
Safeguards and Security	\$2,684	\$3,354	\$3,358
Total Science	\$107,950	\$111,509	\$70,900
Defense Nuclear Nonproliferation			
Defense Nuclear Nonproliferation R&D			
Defense Nuclear Nonproliferation R&D	\$164	\$170	\$177
Total Defense Nuclear Nonproliferation	\$164	\$170	\$177
al Princeton Plasma Physics Laboratory	\$108,114	\$111,679	\$71,077

	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)	2/26/2019 3:01:52PM Page 88 of 129	
Princeton Site Office	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Science Program Direction Program Direction	\$1,799	\$1,862	\$1,895
Total Science	\$1,799	\$1,862	\$1,895
Total Princeton Site Office	\$1,799	\$1,862	\$1,895

Laboratory Table

(Dollars In Thousands)

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land Operations Office	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Reques
Electricity			
Electricity			
Cybersecurity for Energy Delivery Systems	\$200	\$0	\$(
Infrastructure Security & Energy Restoration	\$1,411	\$0	\$(
Total Electricity	\$1,611	\$0	\$(
Total Electricity	\$1,611	\$0	\$0
Cybersecurity, Energy Security, and Emergency Resp			
Cybersecurity, Energy Security, and Emergency Resp			
Infrastructure Security and Energy Restoration (ISER)	\$0	\$1,415	\$3,00
Total Cybersecurity, Energy Security, and Emergency Resp	\$0	\$1,415	\$3,000
Other Defense Activities			
Environment, Health, Safety and Security			
Environment, Health, Safety and Security	\$1,000	\$1,000	\$1,00
Total Other Defense Activities	\$1,000	\$1,000	\$1,000
Defense Nuclear Nonproliferation			
Nuclear Counterterrorism and Incident Response			
Nuclear Counterterrorism Incident Response	\$6,937	\$1,804	\$1,85
Total Defense Nuclear Nonproliferation	\$6,937	\$1,804	\$1,858
Departmental Administration			
Strategic Partnership Projects			
Strategic Partnership Projects	\$100	\$100	\$10
Total Departmental Administration	\$100	\$100	\$10
Defense Environmental Cleanup			
Hanford Site			
Community and Regulatory Support	\$10,121	\$10,121	\$5,12
Office of River Protection	. ,	. ,	. ,
Tank Farm Activities	\$93,000	\$56,053	\$
Program Direction			
Richland	\$42,039	\$46,219	\$44,80
Total Defense Environmental Cleanup	\$145,160	\$112,393	\$49,93
I Richland Operations Office	\$154,808	\$116,712	\$55,88

	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)		2/26/2019 3:01:52PM Page 90 of 129	
cky Flats Site	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request	
Other Defense Activities Office of Legacy Management			<u> </u>	
Legacy Management	\$37,370	\$34,065	\$32,668	
Total Other Defense Activities	\$37,370	\$34,065	\$32,668	
Defense Environmental Cleanup Closure Sites				
Rocky Flats	\$3,889	\$2,000	\$1,900	
Total Defense Environmental Cleanup	\$3,889	\$2,000	\$1,900	
al Rocky Flats Site	\$41,259	\$36,065	\$34,568	

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Laboratory Table (Dollars In Thousands) Page 91 of 129

dia National Laboratories	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Reques
Electricity		Lilacieu	Reques
Electricity			
Transmission Reliability and Resilience	\$3,330	\$2,000	\$5,000
Resilient Distribution Systems	\$3,459	\$1,800	\$2,500
Cybersecurity for Energy Delivery Systems	\$700	\$0	¢_,000 \$(
Energy Storage	\$19,663	\$20,978	\$21,000
Transformer Resilience and Advanced Components	\$15	\$0	\$1,000
Transmission Permitting and Technical Assistance	\$140	\$135	\$(
Infrastructure Security & Energy Restoration	\$760	\$0	\$(
Total Electricity	\$28,067	\$24,913	\$29,50
Total Electricity	\$28,067	\$24,913	\$29,500
Cybersecurity, Energy Security, and Emergency Resp			
Cybersecurity, Energy Security, and Emergency Resp			
Infrastructure Security and Energy Restoration (ISER)	\$0	\$1,125	\$11,150
CEDS	\$0	\$1,600	\$1,800
Total Cybersecurity, Energy Security, and Emergency Resp	\$0	\$2,725	\$12,950
Total Cybersecurity, Energy Security, and Emergency Resp	\$0	\$2,725	\$12,950
Nuclear Energy			
Fuel Cycle R & D			
Fuel Cycle R & D	\$24,310	\$20,610	\$1,380
Nuclear Energy Enabling Technologies			
Nuclear Energy Enabling Technologies	\$2,093	\$2,853	\$2,02
Reactors Concepts RD&D			
Reactors Concepts RD&D	\$3,464	\$1,845	\$2,70
International Nuclear Energy Cooperation			
International Nuclear Energy Cooperation	\$75	\$15	\$0
Supercritical Transformational Electric Power Generation			
Supercritical Transformational Electric Power Generation	\$3,556	\$4,755	\$0
Total Nuclear Energy	\$33,498	\$30,078	\$6,10
Energy Efficiency and Renewable Energy			
Energy Efficiency and Renewable Energy			
Wind Energy	\$6,963	\$7,254	\$3,95
Geothermal Technologies	\$4,792	\$2,635	\$91
Hydrogen & Fuel Cell Technologies	\$8,880	\$7,542	\$3,00
Water Power	\$8,043	\$6,706	\$2,07
Solar Energy	\$13,659	\$10,918	\$6,79
Vehicle Technologies	\$15,561	\$13,000	\$4,00
Building Technologies	\$272	\$272	\$7
Advanced Manufacturing	\$3,000	\$0	\$
Strategic Programs	\$699	\$750	\$
Bioenergy Technologies	\$6,730	\$5,920	\$2,900

# Department Of Energy FY 2020 Congressional Budget Laboratory Table

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(Dollars In Thousands)

dia National Laboratories	FY 2018 Total Enacted	FY 2019 Enacted	FY 202 Reque
Total Energy Efficiency and Renewable Energy	\$68,599	\$54,997	\$23,70
Nuclear Waste Disposal			
Yucca Mountain and Interim Storage			
Yucca Mountain and Interim Storage	\$0	\$0	\$35,43
Total Nuclear Waste Disposal	\$0	\$0	\$35,43
Science			
Advanced Scientific Computing Research			
Advanced Scientific Computing Research	\$9,579	\$17,331	\$11,78
Basic Energy Sciences			
Basic Energy Sciences	\$24,903	\$28,219	\$27,74
Biological and Environmental Research			
Biological and Environmental Research	\$10,407	\$10,002	\$9,20
Fusion Energy Sciences			
Fusion Energy Sciences	\$3,139	\$1,265	\$1,41
High Energy Physics			
High Energy Physics	\$0	\$100	9
Workforce Development for Teachers and Scientists			
Workforce Development for Teachers and Scientists	\$120	\$0	
Total Science	\$48,148	\$56,917	\$50,14
Office of Technology Transitions Office of Technology Transitions	\$55	\$55	\$!
Total Office of Technology Transitions	\$55	\$55	\$!
Weapons Activities			
Directed Stockpile Work			
Directed Stockpile Work	\$1,064,834	\$1,184,044	\$1,219,0 <sup>-</sup>
Science			
Science Campaign	\$48,663	\$44,460	\$52,64
Engineering			
Engineering Campaign	\$69,510	\$74,499	\$92,82
Inertial Confinement Fusion Ignition High Yield			
Inertial Confinement Fusion Ignition High Yield Campaign	\$57,480	\$63,100	\$66,93
Advanced Simulation & Computing			φ00,50
Advanced Simulation & Computing Campaign			
	\$173,022	\$167,314	
Defense Nuclear Security			\$159,80
Defense Nuclear Security Defense Nuclear Security	\$173,022 \$66,266	\$167,314 \$65,884	\$159,80
Defense Nuclear Security Defense Nuclear Security Information technology and Cybersecurity	\$66,266	\$65,884	\$159,80 \$67,08
Defense Nuclear Security Defense Nuclear Security Information technology and Cybersecurity Information technology and Cybersecurity			\$159,80 \$67,08
Defense Nuclear Security Defense Nuclear Security Information technology and Cybersecurity Information technology and Cybersecurity Infrastructure and Operations	\$66,266 \$19,720	\$65,884 \$16,707	\$159,80 \$67,08 \$25,87
Defense Nuclear Security Defense Nuclear Security Information technology and Cybersecurity Information technology and Cybersecurity Infrastructure and Operations Infrastructure and Operations	\$66,266	\$65,884	\$159,80 \$67,08 \$25,87 \$222,41
Defense Nuclear Security Defense Nuclear Security Information technology and Cybersecurity Information technology and Cybersecurity Infrastructure and Operations	\$66,266 \$19,720	\$65,884 \$16,707	\$159,80 \$67,08 \$25,87

# Department Of Energy FY 2020 Congressional Budget Laboratory Table

(Dollars In Thousands)

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dia National Laboratories	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Reques
Advanced Manufacturing Development			
Advanced Manufacturing Development	\$7,703	\$7,372	\$11,975
Total Weapons Activities	\$1,802,134	\$1,881,170	\$1,990,774
Other Defense Activities			
Environment, Health, Safety and Security			
Environment, Health, Safety and Security	\$1,210	\$1,210	\$1,210
Total Other Defense Activities	\$1,210	\$1,210	\$1,210
Defense Nuclear Nonproliferation			
Defense Nuclear Nonproliferation R&D			
Defense Nuclear Nonproliferation R&D	\$125,599	\$123,944	\$136,604
Nuclear Counterterrorism and Incident Response			
Nuclear Counterterrorism Incident Response	\$35,610	\$43,182	\$48,476
Global Material Security			
Global Material Security	\$56,224	\$59,551	\$48,130
Material Management and Minimization			. ,
Material Management and Minimization	\$561	\$1,035	\$800
Nonproliferation and Arms Control			
Nonproliferation and Arms Control	\$7,936	\$7,674	\$8,099
Total Defense Nuclear Nonproliferation Departmental Administration Office of Indian Energy Office of Indian Energy	\$225,930 \$700	\$235,386 \$0	\$242,109 \$2
Total Departmental Administration	\$700	\$0 \$0	\$(
Fossil Energy Research and Development CCS and Power Systems			
Carbon Storage	\$952	\$350	\$0
Advanced Energy Systems	\$250	\$250	\$0
Cross Cutting Research	\$3,079	\$2,495	\$0
Total CCS and Power Systems Advanced Coal Energy Systems and CCUS	\$4,281	\$3,095	\$0
Carbon Capture Utilization and Storage	\$0	\$0	\$195
Crosscutting Research	\$0	\$0	\$2,679
Total Advanced Coal Energy Systems and CCUS Natural Gas Technologies	\$0	\$0	\$2,874
Natural Gas Technologies	\$1,000	\$1,000	\$0
Total Fossil Energy Research and Development	\$5,281	\$4,095	\$2,874
Defense Environmental Cleanup			
NNSA Sites			
Sandia	\$2,600	\$2,600	\$2,652
Total Defense Environmental Cleanup	\$2,600	\$2,600	\$2,652

	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)	3:0	6/2019 )1:52PM ge 94 of 129
Sandia National Laboratories	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Strategic Petroleum Reserve SPR Geotechnical Analytical Support SPR - Facilities Development	\$3.570	\$3,652	\$3,294
Total Strategic Petroleum Reserve	\$3,570	\$3,652	\$3,294
Total Sandia National Laboratories	\$2,219,792	\$2,297,798	\$2,400,807

1	Department Of Energy 20 Congressional Budget Laboratory Table (Dollars In Thousands)	2/26/2019 3:01:52PM Page 95 of 129	
dia Site Office	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Weapons Activities Information technology and Cybersecurity			
Information technology and Cybersecurity	\$0	\$0	\$1,017
Total Weapons Activities	\$0	\$0	\$1,017
Federal Salaries and Expenses Federal Salaries and Expenses			
Federal Salaries and Expenses	\$22,644	\$22,972	\$23,261
Total Federal Salaries and Expenses	\$22,644	\$22,972	\$23,261
al Sandia Site Office	\$22,644	\$22,972	\$24,278

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annah River National Laboratory	FY 2018	FY 2019	FY 2020
•	Total Enacted	Enacted	Reques
Nuclear Energy			
Fuel Cycle R & D			
Fuel Cycle R & D	\$2,750	\$2,420	\$19
Total Nuclear Energy	\$2,750	\$2,420	\$19
Energy Efficiency and Renewable Energy			
Energy Efficiency and Renewable Energy			
Hydrogen & Fuel Cell Technologies	\$1,128	\$1,344	\$50
Solar Energy	\$100	\$0	\$
Advanced Manufacturing	\$2,005	\$0	\$
Bioenergy Technologies	\$290	\$0	\$
Total Energy Efficiency and Renewable Energy	\$3,523	\$1,344	\$50
Total Energy Efficiency and Renewable Energy	\$3,523	\$1,344	\$50
Science			
Basic Energy Sciences			
Basic Energy Sciences	\$0	\$420	\$41
Biological and Environmental Research			
Biological and Environmental Research	\$50	\$0	\$
Fusion Energy Sciences			
Fusion Energy Sciences	\$50	\$0	\$
Science Laboratories Infrastructure			
Science Laboratories Infrastructure	\$50	\$0	\$
Total Science	\$150	\$420	\$41
al Savannah River National Laboratory	\$6,423	\$4,184	\$1,10

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annah River Operations Office	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Reques
Electricity			
Electricity			
Transmission Reliability and Resilience	\$100	\$0	\$0
Infrastructure Security & Energy Restoration	\$956	\$0	\$0
Total Electricity	\$1,056	\$0	\$C
Total Electricity	\$1,056	\$0	\$C
Cybersecurity, Energy Security, and Emergency Resp			
Cybersecurity, Energy Security, and Emergency Resp			
Infrastructure Security and Energy Restoration (ISER)	\$0	\$400	\$5,000
Total Cybersecurity, Energy Security, and Emergency Resp	\$0	\$400	\$5,000
Nuclear Waste Disposal			
Yucca Mountain and Interim Storage			
Yucca Mountain and Interim Storage	\$0	\$0	\$1,050
Total Nuclear Waste Disposal	\$0	\$0	\$1,050
Weapons Activities			
Directed Stockpile Work			
Directed Stockpile Work	\$1,619	\$1,159	\$2,250
Information technology and Cybersecurity			
Information technology and Cybersecurity	\$0	\$0	\$50
Total Weapons Activities	\$1,619	\$1,159	\$2,300
Other Defense Activities			
Environment, Health, Safety and Security			
Environment, Health, Safety and Security	\$500	\$500	\$500
Total Other Defense Activities	\$500	\$500	\$500
Defense Nuclear Nonproliferation			
Material Management and Minimization			
Material Management and Minimization	\$336	\$1,627	\$100
Nonproliferation Construction	·		
Nonproliferation Construction	\$277,450	\$196,500	\$190,000
Total Defense Nuclear Nonproliferation	\$277,786	\$198,127	\$190,100
Federal Salaries and Expenses			
Federal Salaries and Expenses			
Federal Salaries and Expenses	\$6,497	\$5,716	\$5,734
Total Federal Salaries and Expenses	\$6,497	\$5,716	\$5,734
Departmental Administration			
Strategic Partnership Projects			
Strategic Partnership Projects	\$6,700	\$6,700	\$6,700
Total Departmental Administration	\$6,700	\$6,700	\$6,700

	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)	2/26/2019 3:01:52PM Page 98 of 129	
Savannah River Operations Office	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Defense Environmental Cleanup Savannah River Sites			
Community and Regulatory Support Program Direction	\$11,249	\$11,249	\$4,749
Savannah River Safeguards and Security	\$41,055	\$44,250	\$44,018
Savannah River Site	\$159,124	\$163,357	\$179,377
Total Defense Environmental Cleanup	\$211,428	\$218,856	\$228,144
Total Savannah River Operations Office	\$505,586	\$431,458	\$439,528

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annah River Site	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Reques
Weapons Activities		LIIActeu	Reques
Directed Stockpile Work			
Directed Stockpile Work	\$117,676	\$131,713	\$407,55
Science	<i> </i>	<i>•••••</i> ,••••	<i> </i>
Science Campaign	\$660	\$0	\$850
Engineering	•	<b>,</b> -	
Engineering Campaign	\$1,706	\$1,706	\$1,832
Defense Nuclear Security			
Defense Nuclear Security	\$4,906	\$7,537	\$7,688
Information technology and Cybersecurity			
Information technology and Cybersecurity	\$4,831	\$5,554	\$6,780
Infrastructure and Operations			
Infrastructure and Operations	\$156,878	\$148,726	\$174,24
Advanced Manufacturing Development			
Advanced Manufacturing Development	\$3,640	\$5,096	\$5,93
Total Weapons Activities	\$290,297	\$300,332	\$604,893
Defense Nuclear Nonproliferation			
Defense Nuclear Nonproliferation R&D			
Defense Nuclear Nonproliferation R&D	\$6,420	\$6,770	\$8,57
Nuclear Counterterrorism and Incident Response			
Nuclear Counterterrorism Incident Response	\$2,288	\$3,489	\$3,594
Global Material Security			
Global Material Security	\$190	\$190	\$20
Material Management and Minimization			
Material Management and Minimization	\$69,663	\$114,273	\$73,208
Nonproliferation and Arms Control			
Nonproliferation and Arms Control	\$4,886	\$4,728	\$4,96
Nonproliferation Construction			
Nonproliferation Construction	\$4,097	\$10,800	\$79,000
Total Defense Nuclear Nonproliferation	\$87,544	\$140,250	\$169,550
Defense Environmental Cleanup			
Savannah River Sites			
Site Risk Management Operations	\$483,460	\$500,719	\$547,40
Radioactive Liquid Tank Waste Stabilization and Disposition	\$817,605	\$875,689	\$910,97
Total Savannah River Sites	\$1,301,065	\$1,376,408	\$1,458,38
Total Defense Environmental Cleanup	\$1,301,065	\$1,376,408	\$1,458,38
I Savannah River Site	\$1,678,906	\$1,816,990	\$2,232,826

FY 2020 Cong Laborate	tment Of Energy gressional Budget ory Table n Thousands)		2019 52PM 100 of 129
Savannah River Site Office	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Other Defense Activities Environment, Health, Safety and Security			
Environment, Health, Safety and Security	\$10	\$10	\$10
Total Other Defense Activities	\$10	\$10	\$10
Total Savannah River Site Office	\$10	\$10	\$10

FY 2020 Lai	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)		2019 52PM 101 of 129
Separations Process Research Unit	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Defense Environmental Cleanup NNSA Sites Separations Processing Research Unit	\$4.800	\$15.000	\$15,300
Total Defense Environmental Cleanup	\$4,800	\$15,000	\$15,300
Total Separations Process Research Unit	\$4,800	\$15,000	\$15,300

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C National Accelerator Laboratory	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Reques
Energy Efficiency and Renewable Energy		Lilacieu	Reques
Energy Efficiency and Renewable Energy			
Hydrogen & Fuel Cell Technologies	\$50	\$50	\$50
Solar Energy	\$1,713	\$2,445	\$591
Vehicle Technologies	\$5,600	\$4,500	\$1,500
Building Technologies	\$397	\$397	\$115
Advanced Manufacturing	\$8,395	\$0	\$0
Total Energy Efficiency and Renewable Energy	\$16,155	\$7,392	\$2,256
Total Energy Efficiency and Renewable Energy	\$16,155	\$7,392	\$2,256
Science			
Advanced Scientific Computing Research			
Advanced Scientific Computing Research	\$528	\$1,366	\$720
Basic Energy Sciences		. ,	
Basic Energy Sciences	\$415,038	\$389,853	\$235,574
Biological and Environmental Research		. ,	
Biological and Environmental Research	\$5,949	\$4,463	\$3,300
Fusion Energy Sciences	+-,	+ -,	+-,
Fusion Energy Sciences	\$5,550	\$2,340	\$6,200
High Energy Physics	<i><b>v</b></i> , <b>v</b>	<i>+_,</i>	<i>+•,_••</i>
High Energy Physics	\$68,126	\$64,007	\$48,692
Nuclear Physics	<i> </i>	<i><b>v</b></i> <b>v</b> , <b>vv</b>	¢.0,00±
Nuclear Physics	\$1,047	\$1,015	\$774
Workforce Development for Teachers and Scientists	¢1,011	<i><b></b></i>	φ
Workforce Development for Teachers and Scientists	\$415	\$0	\$0
Science Laboratories Infrastructure	ψΠο	ΨŬ	ψŪ
Science Laboratories Infrastructure	\$8,800	\$9,400	\$3,000
Safeguards and Security	φ0,000	ψ0,100	<i><b>40,000</b></i>
Safeguards and Security	\$4,251	\$4,304	\$4,328
Total Science	\$509,704	\$476,748	\$302,588
	<i>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i>	φ110,110	<i>\\</i> 002,000
Weapons Activities			
Science	<b>*</b> •••	<b>*</b> •••	<b>*</b> ***
Science Campaign	\$90	\$90	\$90
Total Weapons Activities	\$90	\$90	\$90
Defense Nuclear Nonproliferation			
Defense Nuclear Nonproliferation R&D			
Defense Nuclear Nonproliferation R&D	\$50	\$1,762	\$1,833
Total Defense Nuclear Nonproliferation	\$50	\$1,762	\$1,833
Fossil Energy Research and Development			
Natural Gas Technologies			
Natural Gas Technologies	\$1,150	\$1,150	\$0
Unconventional FE Technologies from Petroleum – Oil	* ,	. ,	
Unconventional FE Technologies from Petroleum – Oil	\$150	\$252	\$150
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	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)		2/26/2019 3:01:52PM	
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SLAC National Accelerator Laboratory	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request	
Total Fossil Energy Research and Development	\$1,300	\$1,402	\$150	
Total SLAC National Accelerator Laboratory	\$527,299	\$487,394	\$306,917	

FY 2020 Cong Laborat	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)		2019 52PM 104 of 129
Southeastern Power Administration	FY 2018	FY 2019	FY 2020
Southeastern Power Admin Operation & Maint. Purchase Power and Wheeling	Total Enacted	Enacted	Request
Purchase Power and Wheeling Program Direction	\$66,070	\$68,824	\$80,419
Program Direction	\$6,379	\$6,500	\$6,597
Total Southeastern Power Admin Operation & Maint.	\$72,449	\$75,324	\$87,016
Total Southeastern Power Administration	\$72,449	\$75,324	\$87,016

## Department Of Energy FY 2020 Congressional Budget Laboratory Table

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Laboratory rabic	
(Dollars In Thousands)	

	FY 2018	FY 2019	FY 2020
outhwestern Power Administration	Total Enacted	Enacted	Reques
Southwestern Power Admin Operation & Maint.			-
Systems Operation and Maintenance			
Systems Operation and Maintenance	\$16,680	\$17,006	\$13,63
Purchase Power and Wheeling			
Purchase Power and Wheeling	\$50,000	\$60,000	\$93,00
SWPA Construction			
Construction	\$14,932	\$16,875	\$15,06
Program Direction			
Program Direction	\$31,335	\$32,995	\$35,15
Total Southwestern Power Admin Operation & Maint.	\$112,947	\$126,876	\$156,86
al Southwestern Power Administration	\$112,947	\$126,876	\$156,86

	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)	2/26/2 3:01:{ Page	
PRO PMO	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Strategic Petroleum Reserve FY 2018 Emergency Supplemental	<b>80</b> 740	<b>0</b> 0	<u> </u>
SPR - Facilities Development Total Strategic Petroleum Reserve	\$8,716	\$0 \$0	\$0 \$0
otal SPRO PMO	\$8,716	\$0	\$0

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nford Site Office	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020
Electricity		Enacleu	Request
Electricity			
Transmission Reliability and Resilience	\$200	\$200	\$1,000
Resilient Distribution Systems	\$52	\$26	\$C
Total Electricity	\$252	\$226	\$1,000
Total Electricity	\$252	\$226	\$1,000
Science			
Program Direction			
Program Direction	\$2,456	\$2,476	\$2,514
Total Science	\$2,456	\$2,476	\$2,514
al Stanford Site Office	\$2,708	\$2,702	\$3,514

FY	Department Of Energy 2020 Congressional Budget Laboratory Table (Dollars In Thousands)	3:0	/2019 I:52PM e 108 of 129
Strategic Petroleum Reserve - Bayou Choctaw	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Strategic Petroleum Reserve SPR Geotechnical Analytical Support SPR - Facilities Development	\$14.985	\$13.523	\$13,785
Total Strategic Petroleum Reserve	\$14,985	\$13,523	\$13,785
Total Strategic Petroleum Reserve - Bayou Choctaw	\$14,985	\$13,523	\$13,785

	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)	3:01	/2019 :52PM e 109 of 129
Strategic Petroleum Reserve - Big Hill	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Strategic Petroleum Reserve SPR Geotechnical Analytical Support SPR - Facilities Development	\$22,879	\$22,176	\$18,404
Total Strategic Petroleum Reserve	\$22,879	\$22,176	\$18,404
Total Strategic Petroleum Reserve - Big Hill	\$22,879	\$22,176	\$18,404

FY 20	Department Of Energy 20 Congressional Budget Laboratory Table (Dollars In Thousands)		2019 52PM 110 of 129
Strategic Petroleum Reserve - Bryan Mound	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Strategic Petroleum Reserve SPR Geotechnical Analytical Support SPR - Facilities Development	\$20,144	\$25,473	\$17,634
Total Strategic Petroleum Reserve	\$20,144	\$25,473	\$17,634
Total Strategic Petroleum Reserve - Bryan Mound	\$20,144	\$25,473	\$17,634

FY 2020 ( Lab	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)		/2019 1:52PM e 111 of 129
Strategic Petroleum Reserve - West Hackberry	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Strategic Petroleum Reserve SPR Geotechnical Analytical Support SPR - Facilities Development	\$23,972	\$24,093	\$22,481
Total Strategic Petroleum Reserve	\$23,972	\$24,093	\$22,481
Total Strategic Petroleum Reserve - West Hackberry	\$23,972	\$24,093	\$22,481

Department Of Energy FY 2020 Congressional Budget		2/26/2019 3:01:52PM		
Laboratory (Dollars In The		Page	age 112 of 129	
ategic Petroleum Reserve Project Office	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request	
Strategic Petroleum Reserve			<u> </u>	
SPR Geotechnical Analytical Support				
SPR - Facilities Development	\$108,908	\$90,663	\$72,916	
SPR Econometric Modelling Support				
Management	\$19,086	\$16,974	\$17,020	
Total Strategic Petroleum Reserve	\$127,994	\$107,637	\$89,936	
Strategic Petroleum Reserve - Petroleum Account				
SPR - Petroleum Account				
Oil Acquisition and Transportation	\$11,400	\$10,000	\$0	
Total Strategic Petroleum Reserve - Petroleum Account	\$11,400	\$10,000	\$0	
al Strategic Petroleum Reserve Project Office	\$139,394	\$117,637	\$89,936	

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Laboratory Table (Dollars In Thousands) Page 113 of 129

omas Jefferson National Accelerator Facility	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Science			•
Advanced Scientific Computing Research			
Advanced Scientific Computing Research	\$273	\$387	\$382
High Energy Physics			
High Energy Physics	\$25	\$350	\$1,227
Nuclear Physics			
Nuclear Physics	\$124,332	\$129,017	\$125,964
Workforce Development for Teachers and Scientists			
Workforce Development for Teachers and Scientists	\$150	\$0	\$C
Science Laboratories Infrastructure			
Science Laboratories Infrastructure	\$9,900	\$0	\$2,000
Safeguards and Security			
Safeguards and Security	\$2,717	\$3,021	\$3,037
Total Science	\$137,397	\$132,775	\$132,610
Office of Technology Transitions			
Office of Technology Transitions			
Office of Technology Transitions	\$30	\$30	\$30
Total Office of Technology Transitions	\$30	\$30	\$30
al Thomas Jefferson National Accelerator Facility	\$137,427	\$132,805	\$132,640

	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)		2019 52PM 114 of 129
Thomas Jefferson Site Office	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Science Program Direction Program Direction	\$1,947	\$1,971	\$2,165
Total Science	\$1,947	\$1,971	\$2,165
Total Thomas Jefferson Site Office	\$1,947	\$1,971	\$2,165

Department Of Energy FY 2020 Congressional Budget Laboratory Table		3:01	2/26/2019 3:01:52PM Page 115 of 129	
	(Dollars In Thousands)	FY 2019	FY 2020	
lesignated Lab/Plant/Installation	Total Enacted	Enacted	Request	
Weapons Activities				
Legacy Contractor Pensions				
Legacy Contractor Pensions	\$232,050	\$162,292	\$91,200	
Total Weapons Activities	\$232,050	\$162,292	\$91,200	
Defense Nuclear Nonproliferation				
Legacy Contractor Pensions				
Legacy Contractor Pensions	\$40,950	\$28,640	\$13,700	
Total Defense Nuclear Nonproliferation	\$40,950	\$28,640	\$13,700	
Strategic Petroleum Reserve				
SPR Geotechnical Analytical Support				
Northeast Gasoline Supply Reserve	\$29,000	\$29,000	\$0	
Total Strategic Petroleum Reserve	\$29,000	\$29,000	\$0	
Northeast Home Heating Oil Reserve Accourt	nt			
Northeast Home Heating Oil Reserve				
Northeast Home Heating Oil Reserve	\$9,076	\$9,038	\$0	
Total Northeast Home Heating Oil Reserve A	Account \$9,076	\$9,038	\$0	
al Undesignated Lab/Plant/Installation	\$311,076	\$228,970	\$104,900	

FY 2020 Congres Laboratory	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)		019 52PM 116 of 129
University of Rochester	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Weapons Activities Inertial Confinement Fusion Ignition High Yield			
Inertial Confinement Fusion Ignition High Yield Campaign	\$75,000	\$80,000	\$80,000
Total Weapons Activities	\$75,000	\$80,000	\$80,000
Total University of Rochester	\$75,000	\$80,000	\$80,000

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shington Headquarters	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Innovative Tech Loan Guarantee Prog			I
Administrative Operations			
Administrative Operations	\$33,000	\$33,000	\$3,000
Total Innovative Tech Loan Guarantee Prog	\$33,000	\$33,000	\$3,000
Electricity			
Electricity			
Transmission Reliability and Resilience	\$4,762	\$19,359	\$7,200
Resilient Distribution Systems	\$1,931	\$17,363	\$3,000
Cybersecurity for Energy Delivery Systems	\$2,372	\$0	\$0
Energy Storage	\$1,703	\$6,622	\$4,500
Transformer Resilience and Advanced Components	\$135	\$6,779	\$3,000
Transmission Permitting and Technical Assistance	\$1,236	\$4,140	\$2,300
Infrastructure Security & Energy Restoration	\$3,022	\$0	\$0
Program Direction	\$23,006	\$13,824	\$16,026
Total Electricity	\$38,167	\$68,087	\$36,026
Total Electricity	\$38,167	\$68,087	\$36,026
Cybersecurity, Energy Security, and Emergency Resp			
Cybersecurity, Energy Security, and Emergency Resp			
Infrastructure Security and Energy Restoration (ISER)	\$0	\$8,060	\$11,500
CEDS	\$0	\$20,575	\$10,700
Program Direction	\$0	\$8,516	\$8,698
Total Cybersecurity, Energy Security, and Emergency Resp	\$0	\$37,151	\$30,898
Total Cybersecurity, Energy Security, and Emergency Resp	\$0	\$37,151	\$30,898
Nuclear Energy			
University Research Program			
University Research	\$0	\$5,000	\$0
Fuel Cycle R & D			
Fuel Cycle R & D	\$17,640	\$15,278	\$3,509
Radiological Facilities Management			
Radiological Facilities Management	\$26	\$22	\$8
Idaho Facilities Management			
Idaho Facilities Management	\$491	\$1,220	\$1,000
Idaho Sitewide Safeguards and Security	, -	• • •	· ,
Idaho Sitewide Safeguards and Security	\$120	\$202	\$202
Program Direction-NE	÷-=•	<b>+</b>	+
Program Direction-NE	\$39,079	\$45,407	\$31,998
Nuclear Energy Enabling Technologies	<i>\\\</i> 00,070	φ+0,+07	φ01,000
Nuclear Energy Enabling Technologies	\$25,761	\$34,836	\$8,411
Reactors Concepts RD&D	Ψ20,701	φ04,000	ψ0,+11
Reactors Concepts RD&D	¢21 220	\$71 705	\$12 OFO
International Nuclear Energy Cooperation	\$21,389	\$71,705	\$13,950
	¢102	¢120	ድብ
International Nuclear Energy Cooperation	\$103	\$138	\$0

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hington Headquarters	FY 2018 Total Enacted	FY 2019 Enacted	FY 202 Reques
Supercritical Transformational Electric Power Generation		Lilacieu	Reques
Supercritical Transformational Electric Power Generation	\$393	\$245	\$0
Total Nuclear Energy	\$105,002	\$174,053	\$59,078
Energy Efficiency and Renewable Energy			
Energy Efficiency and Renewable Energy			
Wind Energy	\$14,450	\$18,912	\$2,670
Program Direction	\$125,763	\$128,669	\$101,230
Geothermal Technologies	\$8,030	\$35,006	\$6,190
Hydrogen & Fuel Cell Technologies	\$7,388	\$8,754	\$2,000
Water Power	\$9,341	\$20,660	\$9,674
Solar Energy	\$48,648	\$42,073	\$18,540
Vehicle Technologies	\$0	\$0	\$4,000
Building Technologies	\$67,271	\$62,465	\$17,485
Federal Energy Management Program	\$7,353	\$8,784	\$2,231
Weatherization	\$247,887	\$254,544	\$0
State Energy Program Grants	\$50,940	\$51,275	\$0
Advanced Manufacturing	\$27,986	\$157,630	\$54,500
Strategic Programs	\$6,420	\$5,000	\$0
Bioenergy Technologies	\$5,358	\$37,576	\$2,500
Total Energy Efficiency and Renewable Energy	\$626,835	\$831,348	\$221,020
Total Energy Efficiency and Renewable Energy	\$626,835	\$831,348	\$221,020
Advanced Researched Projects Agency-Energy			
Advanced Researched Projects Agency-Energy			
Projects	\$324,064	\$334,750	\$C
Program Direction	\$29,250	\$31,250	\$0
Total Advanced Researched Projects Agency-Energy	\$353,314	\$366,000	\$C
Total Advanced Researched Projects Agency-Energy	\$353,314	\$366,000	\$0
Tribal Indian Energy Loan Guarantee Program			
Tribal Indian Energy Loan Guarantee Program			
Administrative Operations	\$1,000	\$1,000	\$C
· · · · · · · · · · · · · · · · · · ·			•
Total Tribal Indian Energy Loan Guarantee Program	\$1,000	\$1,000	\$0
Advance Technology Vehicles Man Loan Program			
Energy Transformation Acceleration Fund			
Administrative Expenses	\$5,000	\$5,000	\$0
Total Advance Technology Vehicles Man Loan Program	\$5,000	\$5,000	\$C
rotar ravance roomelogy vemeloe man Loan rogram			
Uranium Enrichment Decon. & Decom. Fund			
Uranium Enrichment Decon. & Decom. Fund U/TH Reimbursements	\$25,732	\$11 000	\$ <b>21 በ</b> 3F
Uranium Enrichment Decon. & Decom. Fund	\$35,732 \$35,732	\$11,000	\$21,035 \$21,035

Laboratory Table

(Dollars In Thousands)

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shington Headquarters	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Yucca Mountain and Interim Storage		Endotod	1104000
Yucca Mountain and Interim Storage	\$0	\$0	\$31,364
Total Nuclear Waste Disposal	\$0	\$0	\$31,364
Science			
Advanced Scientific Computing Research			
Advanced Scientific Computing Research	\$72,603	\$68,955	\$125,253
Basic Energy Sciences			
Basic Energy Sciences	\$311,070	\$147,264	\$186,597
Biological and Environmental Research			
Biological and Environmental Research	\$27,540	\$122,814	\$66,218
Fusion Energy Sciences			
Fusion Energy Sciences	\$78,021	\$130,512	\$91,396
High Energy Physics			
High Energy Physics	\$98,884	\$98,294	\$97,641
Nuclear Physics			
Nuclear Physics	\$83,524	\$105,783	\$92,640
Workforce Development for Teachers and Scientists			
Workforce Development for Teachers and Scientists	\$0	\$22,500	\$19,500
Science Laboratories Infrastructure			
Science Laboratories Infrastructure	\$0	\$11,500	\$9,00
Safeguards and Security			
Safeguards and Security	\$8,254	\$4,583	\$9,592
Program Direction			
Program Direction	\$91,775	\$92,066	\$94,548
Total Science	\$771,671	\$804,271	\$792,385
Office of Technology Transitions			
Office of Technology Transitions			
Office of Technology Transitions	\$3,733	\$5,362	\$5,937
Total Office of Technology Transitions	\$3,733	\$5,362	\$5,937
Weapons Activities			
Directed Stockpile Work			
Directed Stockpile Work	\$90,030	\$270,758	\$325,246
Science			
Science Campaign	\$27,266	\$30,966	\$38,746
Engineering			
Engineering Campaign	\$2,070	\$1,989	\$7,018
Inertial Confinement Fusion Ignition High Yield			
Inertial Confinement Fusion Ignition High Yield Campaign	\$9,023	\$7,111	\$7,767
Advanced Simulation & Computing			
Advanced Simulation & Computing Campaign	\$42,151	\$119,802	\$210,572
Defense Nuclear Security			
Defense Nuclear Security	\$95,582	\$30,321	\$116,320
Information technology and Cybersecurity			
Information technology and Cybersecurity	\$102,495	\$142,464	\$209,255

Laboratory Table

(Dollars In Thousands)

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shington Headquarters	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Reques
Infrastructure and Operations			
Infrastructure and Operations	\$121,899	\$156,120	\$226,821
Secure Transportation Asset		. ,	. ,
Secure Transportation Asset	\$105,600	\$102,022	\$107,660
Advanced Manufacturing Development		. ,	. ,
Advanced Manufacturing Development	\$1,800	\$1,351	\$4,107
Total Weapons Activities	\$597,916	\$862,904	\$1,253,512
Other Defense Activities			
Environment, Health, Safety and Security			
Environment, Health, Safety and Security	\$114,174	\$117,320	\$123,109
Program Direction	\$68,253	\$69,000	\$72,881
Total Environment, Health, Safety and Security	\$182,427	\$186,320	\$195,990
Enterprise Assessments	<b>*</b> 22.040	<b>\$00.040</b>	<b>#00.040</b>
Enterprise Assessments	\$23,918	\$23,918	\$23,918 \$57,014
Program Direction	\$50,863	\$52,702	\$57,211
Total Enterprise Assessments	\$74,781	\$76,620	\$81,129
Specialized Security Activities			
Specialized Security Activities	\$262,912	\$266,378	\$254,578
Hearings and Appeals			
Program Direction	\$5,605	\$5,739	\$4,852
Office of Legacy Management			
Legacy Management	\$18,575	\$20,033	\$162,139
Total Other Defense Activities	\$544,300	\$555,090	\$698,688
Defense Nuclear Nonproliferation			
Defense Nuclear Nonproliferation R&D			
Defense Nuclear Nonproliferation R&D	\$15,572	\$75,209	\$21,023
Nuclear Counterterrorism and Incident Response			
Nuclear Counterterrorism Incident Response	\$29,161	\$76,456	\$80,596
Global Material Security			
Global Material Security	\$2,913	\$3,077	\$2,617
Material Management and Minimization			
Material Management and Minimization	\$56,006	\$20,498	\$12,361
Nonproliferation and Arms Control		. ,	. ,
Nonproliferation and Arms Control	\$10,813	\$5,379	\$6,338
Nonproliferation Construction	+ ,	+-,	+ - ,
Nonproliferation Construction	\$45,683	\$4,614	\$30,000
Total Defense Nuclear Nonproliferation	\$160,148	\$185,233	\$152,935
Naval Reactors			
Naval Reactors Program			
Naval Reactors Program	\$132,100	\$145,661	\$142,813
Total Naval Reactors	\$132,100	\$145,661	\$142,813

Federal Salaries and Expenses

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hington Headquarters	FY 2018 Total Enacted	FY 2019 Enacted	FY 202 Reque
Federal Salaries and Expenses	Total Endotod	Endotod	110400
Federal Salaries and Expenses	\$293,450	\$291,328	\$314,01
Total Federal Salaries and Expenses	\$293,450	\$291,328	\$314,01
Departmental Administration			
Energy Policy and Systems Analysis			
Energy Policy and Systems	\$9,747	\$0	\$
Analysis Office of Policy			
Office of Policy	\$0	\$10,010	\$8,00
Total Office of Policy	\$0	\$10,010	\$8,00
Departmental Administration			
Program Direction	\$15,192	\$15,005	\$14,25
Total Departmental Administration	\$15,192	\$15,005	\$14,25
Small and Disadvantaged Business Utilization		. ,	. ,
Program Direction	\$3,000	\$3,170	\$3,60
Total Small and Disadvantaged Business Utilization	\$3,000	\$3,170	\$3,60
Office of Indian Energy			
Office of Indian Energy	\$11,267	\$0	\$
Chief Financial Officer			
Program Direction	\$47,000	\$47,428	\$50,51
Program Direction			
Program Direction	\$25,513	\$26,125	\$24,31
Total Program Direction	\$25,513	\$26,125	\$24,31
Congressional, and Intergovernmental Affairs			
Program Direction	\$6,200	\$6,200	\$5,89
Public Affairs			
Program Direction	\$6,589	\$6,594	\$6,26
General Counsel			
Program Direction	\$33,000	\$33,075	\$33,07
Office of the Secretary			
Program Direction	\$5,300	\$5,395	\$5,11
Management			
Program Direction	\$54,745	\$55,385	\$54,35
Economic Impact & Diversity			
Program Direction	\$10,169	\$10,169	\$9,49
Chief Information Officer			
Program Direction	\$34,905	\$40,304	\$46,70
Cybersecurity and Secure Management	\$70,874	\$71,501	\$52,85
Corporate IT Program Support	\$20,495	\$19,819	\$24,99
Total Chief Information Officer	\$126,274	\$131,624	\$124,55
Total Departmental Administration	\$353,996	\$350,180	\$339,45
Office of the Inspector General			
Office of the Inspector General			
Office of the Inspector General	\$49,000	\$51,330	\$54,21

## Department Of Energy FY 2020 Congressional Budget Laboratory Table

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hington Headquarters	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Total Office of the Inspector General	\$49,000	\$51,330	<u>.</u> \$54,215
Federal Energy Regulatory Commission			
Just and Reasonable Rates, Terms and Conditions			
Just and Reasonable Rates, Terms and Conditions	\$168,111	\$171,318	\$176,468
Safe, Reliable, Secure, & Efficient Infrastructure	<i> </i>	<i>•••••••••••••••••••••••••••••••••••••</i>	<i>•••••</i> ,
Safe, Reliable, Secure, & Efficient Infrastructure	\$131,836	\$130,090	\$132,286
Mission Support through Organizational Excellence	<i> </i>	<i> </i>	÷:•_,_••
Mission Support through Organizational Excellence	\$67,653	\$68,492	\$73,246
Total Federal Energy Regulatory Commission	\$367,600	\$369,900	\$382,000
Fossil Energy Research and Development			
CCS and Power Systems			
Carbon Capture	\$42,432	\$55,504	\$0
Carbon Storage	\$17,872	\$60,042	\$0
Advanced Energy Systems	\$61,129	\$95,881	\$0
Cross Cutting Research	\$7,806	\$7,400	\$0
Total CCS and Power Systems	\$129,239	\$218,827	\$0
Natural Gas Technologies			
Natural Gas Technologies	\$4,530	\$5,047	\$2,000
Program Direction			
Headquarters Program Direction	\$32,004	\$33,840	\$33,471
Special Recruitment Programs			
Special Recruitment Programs	\$700	\$700	\$700
Unconventional FE Technologies from Petroleum – Oil			
Unconventional FE Technologies from Petroleum – Oil	\$3,396	\$29,671	\$3,400
Total Fossil Energy Research and Development	\$169,869	\$288,085	\$39,571
Naval Petroleum and Oil Shale Reserves			
Naval Petroleum and Oil Shale Reserves			
Management	\$1,000	\$1,000	\$1,000
Total Naval Petroleum and Oil Shale Reserves	\$1,000	\$1,000	\$1,000
Defense Environmental Cleanup			
Program Direction			
Headquarters	\$97,489	\$83,630	\$73,875
Program Support			
Program Support	\$14,979	\$12,979	\$12,979
Technology Development			
Technology Development	\$35,000	\$25,000	\$0
Total Defense Environmental Cleanup	\$147,468	\$121,609	\$86,854
Strategic Petroleum Reserve			
SPR Econometric Modelling Support			

FY 2020 Congres Laboratory	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)		26/2019 :01:52PM age 123 of 129	
ashington Headquarters	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request	
Total Strategic Petroleum Reserve	\$8,440	\$8,430	\$7,430	
Northeast Home Heating Oil Reserve Account Northeast Home Heating Oil Reserve Northeast Home Heating Oil Reserve	\$924	\$962	\$0	
Total Northeast Home Heating Oil Reserve Account	\$924	\$962	\$0	
Energy Information Administration Energy Information Administration National Energy Information System	\$125,000	\$125,000	\$118,000	
Total Energy Information Administration	\$125,000	\$125,000	\$118,000	
tal Washington Headquarters	\$4,924,665	\$5,692,984	\$4,791,223	

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ste Isolation Pilot Plant	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Reques
Defense Nuclear Nonproliferation			
Nuclear Counterterrorism and Incident Response			
Nuclear Counterterrorism Incident Response	\$56	\$38	\$39
Material Management and Minimization			
Material Management and Minimization	\$7,201	\$9,722	\$9,500
Nonproliferation and Arms Control			
Nonproliferation and Arms Control	\$0	\$325	\$0
Total Defense Nuclear Nonproliferation	\$7,257	\$10,085	\$9,539
Defense Environmental Cleanup			
Waste Isolation Pilot Plant			
Operation and Maintenance	\$322,217	\$305,212	\$327,242
Transportation	\$21,854	\$25,500	\$26,500
Total Waste Isolation Pilot Plant	\$344,071	\$330,712	\$353,742
Total Defense Environmental Cleanup	\$344,071	\$330,712	\$353,742
al Waste Isolation Pilot Plant	\$351,328	\$340,797	\$363,282

	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)	2/26/2019 3:01:52PM Page 125 of 129	
Weldon Spring Site Office	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Other Defense Activities Office of Legacy Management Legacy Management	\$7.482	\$2,996	\$3,193
Total Other Defense Activities	\$7,482	\$2,996	\$3,193
Total Weldon Spring Site Office	\$7,482	\$2,996	\$3,193

	Department Of Energy FY 2020 Congressional Budget Laboratory Table (Dollars In Thousands)		2019 :52PM 126 of 129
est Valley Demonstration Project	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Request
Non-Defense Environmental Cleanup West Valley Demonstration Project			
West Valley Demonstration Project	\$75,000	\$75,000	\$75,215
Total Non-Defense Environmental Cleanup	\$75,000	\$75,000	\$75,215
Defense Environmental Cleanup Safeguards and Security			
West Valley	\$3,098	\$3,133	\$3,196
Total Defense Environmental Cleanup	\$3,098	\$3,133	\$3,196
tal West Valley Demonstration Project	\$78,098	\$78,133	\$78,411

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tern Area Power Administration	FY 2018 Total Enacted	FY 2019 Enacted	FY 202 Reques
Electricity			•
Electricity			
Cybersecurity for Energy Delivery Systems	\$45	\$0	\$
Transmission Permitting and Technical Assistance	\$300	\$0	\$
Infrastructure Security & Energy Restoration	\$1,000	\$0	\$
Program Direction	\$3	\$0	\$
Total Electricity	\$1,348	\$0	\$
Total Electricity	\$1,348	\$0	\$
Cybersecurity, Energy Security, and Emergency Resp			
Cybersecurity, Energy Security, and Emergency Resp			
Infrastructure Security and Energy Restoration (ISER)	\$0	\$0	\$1,00
CEDS	\$0	\$155	\$
Total Cybersecurity, Energy Security, and Emergency Resp	\$0	\$155	\$1,00
Total Cybersecurity, Energy Security, and Emergency Resp	\$0	\$155	\$1,00
Departmental Administration			
Office of Indian Energy			
Office of Indian Energy	\$150	\$0	\$
Total Departmental Administration	\$150	\$0	\$
Falcon & Amistad - Operating & Maintenance Fund			
Falcon & Amistad Operating and Maintenance Fund			
Falcon & Amistad - Operating and Maintenance	\$4,176	\$4,068	\$4,46
Total Falcon & Amistad - Operating & Maintenance Fund	\$4,176	\$4,068	\$4,46
Western Area Power Admin. Const.,Rehab.,O&M			
Systems Operation and Maintenance			
Systems Operation and Maintenance	\$288,111	\$300,295	\$330,42
Program Direction			
Program Direction	\$197,324	\$199,347	\$205,37
- Total Western Area Power Admin. Const.,Rehab.,O&M	\$485,435	\$499,642	\$535,79
Colorado River Basins Power Marketing Fund			
Equipment, Contracts and Other Related Expenses			
Colorado River Storage Project	\$127,055	\$157,389	\$153,13
Program Direction			
Program Direction	\$58,341	\$62,948	\$67,11
Total Colorado River Basins Power Marketing Fund	\$185,396	\$220,337	\$220,24
l Western Area Power Administration	\$676,505	\$724,202	\$761,49
	\$310,000	Ψ· - ',202	φισι,το

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2 National Security Complex	FY 2018 Total Enacted	FY 2019 Enacted	FY 2020 Reques
Science		Endeted	Reques
Science Laboratories Infrastructure			
Science Laboratories Infrastructure	\$500	\$1,250	\$(
Total Science	\$500	\$1,250	\$0
Weapons Activities			
Directed Stockpile Work			
Directed Stockpile Work	\$427,512	\$561,017	\$563,664
Science			
Science Campaign	\$677	\$252	\$350
Engineering			
Engineering Campaign	\$2,332	\$2,332	\$4,395
Advanced Simulation & Computing			
Advanced Simulation & Computing Campaign	\$500	\$500	\$0
Defense Nuclear Security			
Defense Nuclear Security	\$215,181	\$167,532	\$167,465
Information technology and Cybersecurity			
Information technology and Cybersecurity	\$6,863	\$6,765	\$7,572
Infrastructure and Operations			
Infrastructure and Operations	\$1,040,107	\$1,033,857	\$1,071,977
Secure Transportation Asset			
Secure Transportation Asset	\$5	\$5	\$0
Advanced Manufacturing Development			
Advanced Manufacturing Development	\$38,046	\$34,576	\$73,628
Total Weapons Activities	\$1,731,223	\$1,806,836	\$1,889,051
Defense Nuclear Nonproliferation			
Defense Nuclear Nonproliferation R&D			
Defense Nuclear Nonproliferation R&D	\$6,465	\$2,568	\$1,507
Nuclear Counterterrorism and Incident Response	¥ - )	+ )	• ,
Nuclear Counterterrorism Incident Response	\$2,689	\$2,938	\$3,026
Global Material Security	· )	· · · · · ·	¥ - )
Global Material Security	\$10,319	\$11,747	\$8,633
Material Management and Minimization	+ - )	Ŧ,	· - /
Material Management and Minimization	\$25,144	\$29,886	\$33,748
Nonproliferation and Arms Control			. ,
Nonproliferation and Arms Control	\$3,427	\$3,300	\$3,486
Total Defense Nuclear Nonproliferation	\$48,044	\$50,439	\$50,400
Federal Salaries and Expenses			
Federal Salaries and Expenses			
Federal Salaries and Expenses	\$2,278	\$2,240	\$2,240
Total Federal Salaries and Expenses	\$2,278	\$2,240	\$2,240

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2 Site Office	FY 2018	FY 2019	FY 2020
	Total Enacted	Enacted	Request
Other Defense Activities			
Environment, Health, Safety and Security			
Environment, Health, Safety and Security	\$20	\$20	\$20
Total Other Defense Activities	\$20	\$20	\$20
Defense Environmental Cleanup			
Oak Ridge Reservation			
Nuclear Facility D & D, Y-12	\$37,093	\$35,000	\$31,886
OR Technology Development and Deployment	\$3,000	\$3,000	\$3,000
Total Oak Ridge Reservation	\$40,093	\$38,000	\$34,886
Total Defense Environmental Cleanup	\$40,093	\$38,000	\$34,886
al Y-12 Site Office	\$40,113	\$38,020	\$34,906